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ORIGINAL ARTICLES.

UNUNITED FRACTURES.[1]

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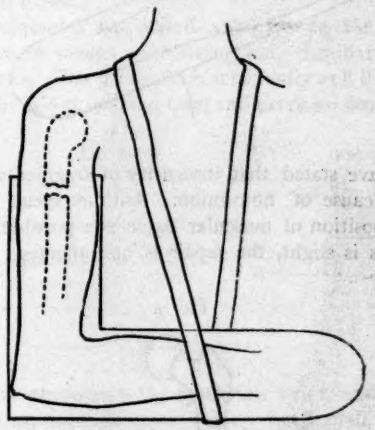
FOR knowledge concerning the frequency of non-union in fractures we turn naturally to hospital statistics, and are astonished to find no recorded cases. This would imply that hospital surgeons were loath to put on record their failures, or that hospital treatment was superior to that in private practice; but neither conclusion is correct. Hospital records recognize but three classes, viz., "cured," "relieved," and "died." Now, few cases of simple fracture require more than two months, and were a case to be dismissed at the end of three or even four months, it would neither be true as a matter of fact, nor just to the surgeon treating the case, to place it on record as a case of "non-union." I have made no attempt to collect cases, but can recall eighteen cases—eight of the humerus, five of the femur, two of both bones of the leg, two of both bones of the forearm, and one of the jaw. These cases were treated in the Pennsylvania, Presbyterian, St. Mary's, Jefferson, and Hahnemann Hospitals, and in private practice. I have no means of estimating the frequency of non-union, but feel that the estimate of Hamilton (1 : 500) is much too low.

The most extensive statistical tables with which I am acquainted (Agnew's) give much interesting material, from which I formulate the following: That fractures in long bones occur most frequently near the foot and wrist, while non-union occurs most frequently near the shoulder and pelvis. In other words, the further from the trunk, the more frequent the fracture; the nearer the trunk, the more frequent non-union. If syphilis, scurvy, old age, wasting disease, paralysis, fevers, etc., were the cause of non-union, then it would occur most frequently in the parts in which fracture was most frequent, but this is not the case. Fracture in the long bones occurs more commonly in the leg above the ankle, but non-union is more than twice as common in the humerus near the shoulder.

Surgeons at the present day believe that non-union is chiefly the result of faulty fixation, as a result of which the reparative process is disturbed. This disturbance is from uncontrolled or uncontrollable muscular action: the latter when the patient is suffering from delirium; the former when the patient is conscious, but, either through neglect or over-anxiety to help himself, resorts to harmful muscular activity.

To secure the most perfect fixation, the profession resorts to splints, and sometimes the object of fixation is defeated by the very means adopted to secure it. This is illustrated in the case of the long rectangular splint used by many practitioners in *all* fractures of the humerus. A glance at Fig. 1 will show that the upper fragment receives no support from the splint, while, when the hand is removed

FIG. 1.



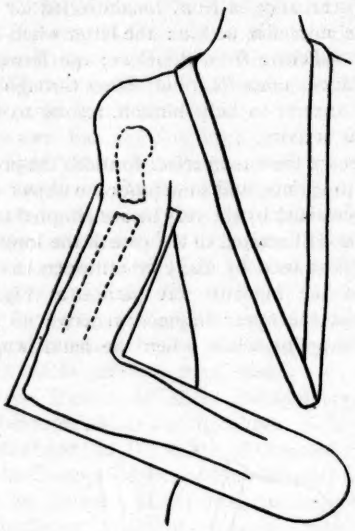
from the sling (as it invariably is as soon as the soreness leaves the part), the long splint will itself compel the fragments to separate as in Fig. 2. In such a case my practice has been to place thorax, shoulder, arm, and forearm in a plaster-of-Paris splint.

When suffering from fracture in the upper third of the humerus shall the patient be permitted to rise and go about? If we ask those in whom non-union resulted, they will tell us that attempts to rise in bed always caused the fragments to move. Whether or not I have seen an unusually large number of ununited fractures I cannot say, but the operation for their relief is so formidable, and the entire loss of time so great, that I now insist on recumbency in many cases that I would formerly have permitted to

[1] Read before the College of Physicians, Philadelphia, December 2, 1891.

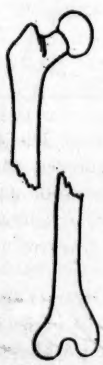
rise. It was a remark of my late gifted colleague, Dr. Richard J. Levis, that there was as good reason why a man should go to bed for a fractured clavicle as for a fractured femur. Certainly the bed is the place for the most perfect rest, and under no circumstances is rest more desirable than when Nature is repairing a fracture.

FIG. 2.



I have stated that insecurity of fragments is the chief cause of non-union. Authors speak of the interposition of muscular tissue as a possible cause. If this is slight, the repair is not affected; but if

FIG. 3.



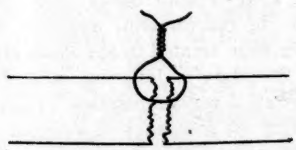
the two fragments are widely separated, when fragments transfix muscular fiber, or when in the leg or forearm a considerable fragment is lost from one bone only—under these circumstances non-union may take place. I was taught a useful lesson in one of my cases[1]: After cutting down upon the fractured parts, I found the fragments widely separated, and the fractured surfaces facing in opposite directions (Fig. 3). They had made a half-revolution upon each other, and were as distinct as if they had been in separate individuals. An interesting feature was the peculiarity of the healing over of the ends of the fragments. They each resembled the stump after amputation. In amputations Nature seems conscious of having no splinting to do, and hence we see no circumferential bone-proliferation, no temporary core, but instead a healing over with compact tissue. In my case Nature seemed to recognize that any attempt at union would have been useless, and therefore made no effort.

Surgical methods to secure bony repair. These are: (1) to stimulate reparative action without penetrating the seat of fracture; (2) to stimulate reparative action by means of irritants carried to the seat of the injury; (3) to boldly expose the fragments and reunite them by means of artificial agents.

I shall confine my remarks to the last head.

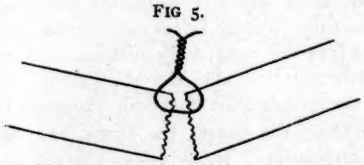
Operations that expose the fractured surfaces vary in degree. The simplest method of uniting the bones is by means of wire. A small awl or small chisel is usually carried to the seat of injury, and the ends of the bone thoroughly scarified; a wire is then introduced as represented in Fig. 4. In cases

FIG. 4.



so treated the fragments sometimes unite firmly, but it is not that the wire plays any part in fixation. (Fig. 5.) It is rather that the wire by its presence

FIG 5.



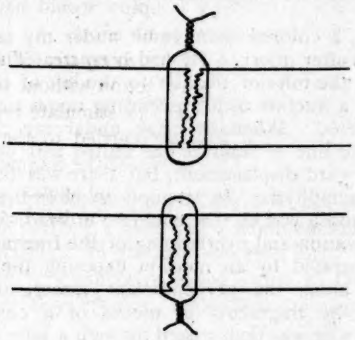
keeps up the inflammatory process so necessary to adequate bone-production. Such cases get well on the principle of the seton, not by the law of fixation by wiring.

The wires are best used in non-union of bones of the forearm and leg. In the arm and thigh, in which we have but single bones, the wire is of little value as a means of fixation. When wires are used to fix

[1] Case treated in the coal regions and sent to Jefferson Medical College Hospital with non-union.

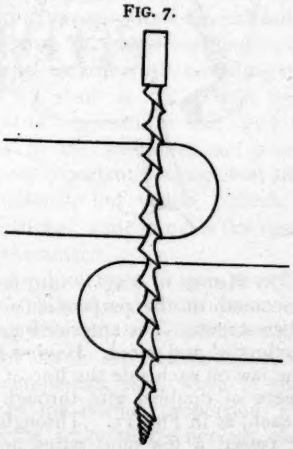
the bones of the forearm, the best results are obtained when the wires pass entirely through each fragment. (Fig. 6.) Under these circumstances the bones are so securely fixed that union is almost certain to follow. In such operations it is well to approach the radius and ulna by separate incisions, and thus avoid communication between them. By this means bridges between the radius and ulna may be avoided, and function restored with pronation and supination. The wires may be retained for two months. I use copper wire—a single strand, soft, pliable, but strong enough to hold the fragments.

FIG. 6.



I have never employed pegging by means of ivory or bone pegs. Theoretically it is a captivating thought to peg fragments with a material that will be absorbed—to close the wound and secure union by first intention. Practically the pegs act as foreign elements, and are not absorbed; suppuration takes place; fixation is not satisfactory; and if success follows, it is not due to the pegs.

FIG. 7.



Nothing can compare in efficacy with the screw as a means of fixation. In some form it has long been familiar to the profession. The elder Pancoast invented one that, from its size and character, was intended (1) to pierce the fragments without preliminary incision; (2) to bind them together; (3) by its presence to excite adequate inflammatory action. As the application of the screw was subcutaneous, it was uncertain in its action; and, as there was a thread the whole length, the fragment could not be approximated after the screw had taken hold of both fragments. (See Fig. 7.) I am familiar with its use in two cases. The first occurred when I was surgical interne at the Philadelphia Hospital. Dr. Maury employed it in non-union of the femur in the upper part of the middle third. The resulting inflammation was considerable, and before the screw was withdrawn repeated hemorrhages of a serious character took place. Bony union was finally established with about three inches of shortening, and the patient, a man in the prime of life, was restored to active manual labor. In the second case the elder Gross employed the screw in the case of a man, aged about forty-five, with non-union in the middle third of the humerus. Union took place with almost complete paralysis of the forearm, probably due to injury of the musculo-spiral nerve.

Volkmann has called attention to the bridge-splice, a means of splicing long familiar to mechanics. The principle is sufficiently well illustrated in the accompanying cuts, and needs no description.

FIG. 8.

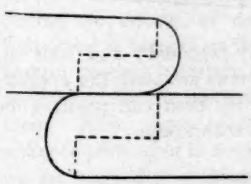
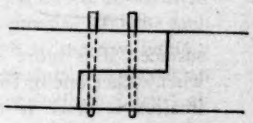


FIG. 9.



I have performed the operation twice, and in each instance secured bony union; but I shall not employ it again, because the result as represented in Fig. 9 is unattainable. The carpenter, with rule, gauge, squares, miter-boxes, and vice, may take two independent pieces of wood and so mortise them as to secure close joints and linear perfection, but the surgeon who makes three independent cuts in each fragment, held at best only in the grasp of an assistant and shaking with each forward and backward motion of the saw, finds that he has no possible guide but his eye, and must not be surprised if his best effort more nearly resembles Fig. 10 than the one given by Volkmann (Fig. 9). In my second employment of the bridge-splice, I encountered a difficulty that gave me much uneasiness, though the result was satisfactory. In this case non-union in the lower third of the femur had resulted, and, after

making my splice and inserting my screw, I was annoyed to have one fragment slip from its fellow, as shown in Fig. 11. This I could not prevent, but the final result was satisfactory.

FIG. 10.

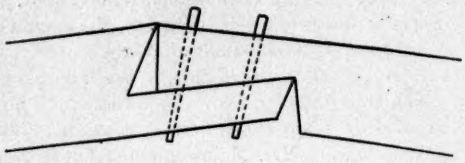
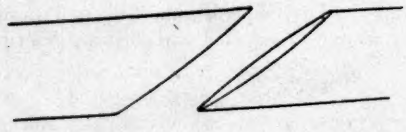


FIG. 11.

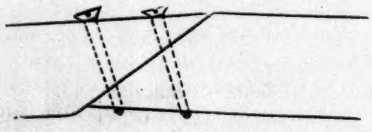
Since this mishap I have confined my efforts to the simple bevelled splice (Fig. 12) in single bones, *i. e.*, in humerus and femur. It gives the best surface-approximation; it exposes the least amount of bone

FIG 12.



surface; it is more easily executed; and with it, when either one or two screws are used, the approximation is more satisfactory than can possibly be obtained with bridge-splice and pegs.

FIG. 13.



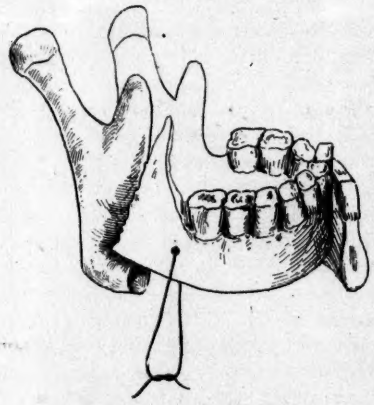
I have been using carpenter's screws for about four years. I was induced to adopt them from the fact that screws long enough to project from the wound, like those of Pancoast and Gaillard, were unnecessarily irritating. I select slim steel screws sold at hardware shops, and am guided as to their length by the size of the bone and the obliquity of the screw-holes. *The hole for the screw in the proximal fragment should be so large that the thread will not get a hold upon it. The screwhole, however, in the distal fragment should be small, so that the screw will gain a firm hold.* With a screwdriver I then drive the screw down until the parts are firmly together—sometimes using two screws, sometimes one. I do not usually attach fine wires to the screws to enable me to find them. The screws as a rule are gradually forced from their beds by the reparative process, and can usually be picked from the surface of the bone after two months. I rarely need more than a pair of dressing forceps to remove the screw. After it is removed, the sinus, which has persisted throughout the entire course of treatment, soon closes without any evidence of partial necrosis that would be supposed to follow the use of the screw.

The following case well illustrates the combined use of the screw and wire:

I. S., a colored man, came under my care four months after injury. He had been treated for fracture of the inferior maxilla to the left of the symphysis, a fracture of the ascending ramus remaining undetected. When he came under my care the posterior line of fracture had united with considerable upward displacement, but there was no union at the symphysis. In attempts to close the jaws a single tooth was all that could be utilized, owing to the elevation and overlapping of the fragments.

I operated by an incision exposing the line of union along the perpendicular ramus, and separated the fragments by means of a chisel. A strong wire was then passed through a hole made in the loose fragment (see Fig. 14), thus enabling my

FIG. 14.



colleague, Dr. Hearn, to drag it into position. It was then secured to the perpendicular ramus by means of two screws. The anterior fragments were then approximated and wired. Having bored holes through the jaw on each side the line of fracture, I passed a piece of doubled wire through and made an eye of each, as in Fig. 15. Through these eyes or loops I passed a few short wires, and, drawing these tightly, I twisted them over other transverse wires (Fig. 16). I was then ready to secure the fragments, and, while these were forced into position, I took the free extremities of the wires and

twisted them firmly. I thus secured the fragments, and the result was a useful, presentable jaw. Fig. 17 represents the concluding steps of the operation—which, with modifications, I have repeatedly employed.

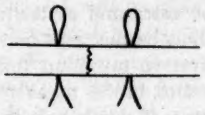


FIG. 15.

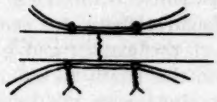


FIG. 16.

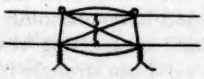


FIG. 17.

In all my operations, where free drainage has been maintained, I have had a minimum amount of inflammation. In one case abscesses formed in the surrounding connective tissue owing to failure to establish early, efficient, dependent drainage.

THE DIETETIC TREATMENT OF SOME IMPORTANT NEUROSES.

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IN the year 1882 I began a series of examinations of the urine in health and in disease, and under varying conditions of rest and work, from that of moderation to that of excess. As I have already published my observations on the urine under the different conditions of rest and work, including mental work and anxiety, I shall on the present occasion take up only those observations that lead to valuable suggestions in the treatment and management of some of those important neuroses that are sometimes called functional, but which, I think, should be called nutritional, and, in not a few cases, toxic, in their true character.

When I speak of toxic, I mean that from time to time there is formed within the system, as the result of a derangement of the relation between the processes of formation and elimination, some of those chemical compounds that, when in the blood in greater than the normal proportion, give rise to changes in the action of the nervous elements that become evident by symptoms of a very pronounced nature.

The fact that megrim, chorea, epilepsy, hysteria, the forms of insanity affecting the younger members of society, are ever on the increase, points to some cause or causes that are constantly and progressively with us. These causes, acting steadily, become confirmed in the family history, and ultimately ascend in importance and strength to be true diathetic conditions that may run on through a great many generations. We might mention, as examples, the existence of gout, megrim, epilepsy, etc., that weave themselves so closely into the histories of some families. In a paper of mine, some years ago, I showed how the habits of life of some persons in certain places had developed a tendency to phthisis and to kidney diseases. My present object is to show that certain habits of food and occupation have developed a large and important group of neuroses that, once called into existence, baffle the skill of our best therapeutists.

The more specialized and highly evolved any organ is, the more likely is it to become influenced by unfavorable conditions; the highest functions show signs of failure sooner than the lower and simple functions. Thus it would be that under conditions that cause a departure from the standard of true health the more voluntary would fail before the less voluntary. It would be that side of our nervous nature that is least firmly established or organized, that would become unsteady in the discharge of its functions, and, departing from the average, would be regarded as diseased. Again, those parts of the human body that have the most complex work to perform can be most readily perverted or arrested during the course of development. When each individual is born there is given to the new being a certain impetus, a certain momentum, to carry it on into the future to complete its growth and development. Now, there may be inherited tendencies either to prevent or to arrest. These tendencies, that we are pleased to call inherited, had once a beginning—in other words, were acquired at some date in the past. All this is well seen in the fact that some families are for generations prone to dyspepsia, others to heart trouble in some form, others to hysteria and allied affections, and still others to such a state as pseudo-hypertrophic paralysis. While these cases are admitted as true beyond any shadow of doubt, there is still another direction in which heredity is shown, but which is not yet so well understood, namely, that of the minute chemical composition of the body, and the hereditary tendency to variations in it. The long-continued use of a certain line of diet stamps certain characteristics of composition on the solids and juices of the body that, though minute, are very potent. This we see in gout and in rheumatism, in the occurrence in families of bromidroses, and in the existence in others of hyperacidity of the urine. This is chemistry in its hereditary aspects.

Suppose, now, that within our bodies strychnine was formed, and suppose anything altered the adjustment of formation and elimination, so that this powerful agent accumulated within the body. Tetanic spasms would then result. Or, suppose that the animal economy daily produced a certain quantity of opium, and that this formation continued to go on in excess of its discharge. A state of increasing coma would ensue. But, within our bodies there are naturally formed both convulsants and soporifics—such materials as will produce spasm on the one hand, and coma on the other. We are all familiar with uremic coma; but perhaps all are not equally familiar with the convulsive movements due to an excess of uric acid in the circulating fluids of the body; and yet such formation takes place. It is to this question that I wish to devote some attention, as it is one of much more importance than has been generally thought.

With regard to uric acid in the blood, I am quite in accord with the work already done by Dr. A. Haig. An excess of this agent can act as a direct exciting cause to convulsive attacks. I have for a long time had under treatment a well-developed gentleman, now in his thirty-third year, who has had epilepsy since an attack of inflammatory rheumatism in his seventeenth year. I have often examined his urine, and always find a deficiency of uric acid before attacks, an excess during and just after an attack, and then a deficiency afterward again. To put this to the test, I have on several occasions told him to eat meats, canned salmon, lobsters, cheese, and eggs freely, and to drink ale, beer, or stout at meals. As the direct outcome of this the epileptic attacks became more frequent and prolonged, the primary pallor of the surface more distinct, the convulsive movements stronger, the subsequent paralysis greater, the after-sleep and headache more intense, than when care was taken to use less meat, and no beer or ale.

The lessons from a case like this cannot be lightly passed over. Here is an instance in which certain articles of food and drink have a direct influence upon the attacks. Whether it is that the ingestion of so much nitrogenous food produces an unstable condition of the central nervous matter, or whether the attack depend upon the excess of uric acid thus formed, is a little difficult to determine. One thing, however, remains clear, and that is the advice to reduce to a minimum all nitrogenous forms of food. The case is cited as an example, but I have a number of epileptics that have been greatly benefited by allowing them no animal food, except milk, and cutting off from their dietary all wines and beers. In this way they have been able to get on with much smaller quantities of the bromides; and this has also proved another advantage, as we all admit that the prolonged use of bromides is not devoid of evil.

I cannot say that all epileptics are victims to an excess of uric acid retained within the system. This could only be decided by experience with a large number of cases and as the result of many observations. But, be this as it may, there is now no doubt whatever in my mind that the rigid restriction of the diet, in the manner indicated, will be found a means of much help in the treatment of this class of patients. Connected with this view of the case I found epilepsy frequently associated with a history of rheumatism and gout, either in the patient or in the family to which he belongs. For this reason, along with the bromides, I have often combined the salicylates to wash the uric acid out of the system, and at least relieve this source of irritation. As I have previously said, "I would not go the length of asserting that epilepsy is a food-diathesis, yet I am strongly inclined to think that it tends that way." There is a variety of nervous economy to which certain lines of food prove injurious, and I think epilepsy is a good example of this.

In hysteria I have often found an excess of uric acid in the urine at the time of the attacks, but I have not made a sufficient study of these cases to venture any positive opinion. On the allied condition of neurasthenia, however, I have no doubt but that the uric-acid condition has considerable influence. The lithemic condition has often been noted in these cases, but whether to regard it as cause or effect has remained in doubt. The greater the quantity of uric acid excreted in the urine per diem the greater will be the degree of the depression, or neurasthenia. The brain is very anemic, and as a consequence badly fed. It is not only starved, but in addition it is poisoned. It is in this way that we can account for the despondency and melancholia of this class of sufferers. I have now the record of a large number of observations made on the urine in such cases, and just in proportion to the excretion of uric acid is the depression or neurasthenia.

In the treatment of these cases I have been led to depart a good deal from the plans usually adopted. The patient is at once placed upon a milk and farinaceous diet. All stimulants in the form of wine, beer, etc., are strictly interdicted, and rest and quiet are advised. The patient is then ordered opium in solid form in doses of from gr. ¼ to gr. 1, three times a day. Great care must here be taken that the patient knows nothing of what is being given; as soon as the stage of depression is passing away, the dose of the opiate is to be lessened until it is wholly withdrawn and a tonic is substituted for it. In the meantime put the patient on a mild

course of the salicylates, and maintain this until the excretion of uric acid is reduced to the normal. Should massage and electricity be required to recall lost energies, by all means use them, but not until the foregoing plan has been tried for some time.

The use of opium in these cases is very helpful. It produces a feeling of ease and comfort in the patient that aids the other means of treatment. In addition, it affords the system a much-needed rest. I mean more than a mere physical rest. There ensues a quiet to all the functions, and an arrest of waste, that is very much needed in all these cases of neurasthenia. Under the influence of the judicious use of opiates the patient's attention can be withdrawn from the habit of introspection to take a wider interest in outside affairs. In other words, the patient thinks less about herself or himself and more of other things. In the meantime, by a properly regulated diet and the use of the salicylates the uric acid that has usually been accumulating for a long time is washed out of the system. The limitation of the food to milk and farinaceous articles steadily improves the appetite. Some of the mineral waters, as Frederichshall or Carlsbad, are decidedly useful in clearing the system.

A few words on chorea. The value of arsenic is fully established in this disease. It often fails to do all the good it might, because it is not given freely enough. This drug must be pushed to the full point of tolerance; when it is necessary to leave it off for a day or two begin again with the full doses that were given at the time of the interruption. But, as I have made several examinations of the composition of the urine in this disease, and have found an excess of uric acid present, and consequently in the blood during attacks, it has been my custom, along with the arsenic, to give the salicylates. This has another explanation in the fact that chorea so often occurs in persons with a rheumatic history. Potassium iodide has, in my hands, sometimes been very useful, especially if there are any cardiac symptoms. Another drug that is not used in chorea nearly so frequently as it merits is opium or morphine. A hypodermatic of morphine given to a patient twisting around with choreic movements will convince the most skeptical as to its value. The movements should be nearly controlled by the opiate, and abundance of sleep secured by the same means. A thoroughly nourishing diet of milk and farinaceous food must be pushed freely, in order that the tone and strength of the patient, which are low, be made up with the utmost speed.

I now come to the last disease I intend touching upon at this time, namely, megrim. I wish to enter my unqualified protest against the terms "bilious sick-headache," "dyspeptic headache," and all such names as would lead to the belief that the attack of headache is due to mere indigestion. Nothing has done more to retard true pathology and therapeutics than the prevalence of such a view of these attacks.

To begin with, I have not found a single case of megrim that has not been a pure diathetic condition. I am perfectly prepared to stand by the assertion that true megrim is a lithemic crisis. This state causes the hard pulse, contracted arterioles, headache, vomiting, and finally the regurgitation of bile into the stomach and its rejection by the mouth. I have patients who will pass an entire year without a single attack, provided they watch their diet. Meat, cheese, eggs, and fish with red flesh, I order them to abstain from, and to use no wines or beers. So long as this advice is followed all goes well.

The treatment of these cases resolves itself into two parts—that of the attack and that of the diathesis. First, then, as to the attack. The patient calls for relief. If the attack is seen early a full dose of phenacetin, or antipyrin, may be ordered, and repeated if necessary. These agents, however, are not always sure to succeed, and the pain goes on, uninfluenced by them. Vomiting may ensue, and prevent the action of any medicine given by the mouth. Now, there is no need for this failure. Give the patient a hypodermatic injection of morphine, and rest, and ease will soon follow. The objections to this treatment are that there is pain after the morphine ceases to act, and that a morphine-habit may be contracted. Neither objection holds good. Give salicylates freely while the patient is under the influence of the opiate. By this means the uricemia is got rid of, and the angio-tetanus removed. This being the case there will be no further return of the headache. There is no danger of forming a habit, when we bear in mind that with proper treatment the attacks will practically cease.

The treatment in the intervals of the attack is the main point to which attention should be given. The uricemia must be corrected, and to this the attention must be steadily directed. I maintain that if patients will only live up to the information we are able to give them, they may have the control of their attacks of megrim in their own hands. By the complete denial of all ale, beer, porter, etc., and of all kinds of wine, and absolutely refusing all animal food, except milk, the diathesis on which it depends must entirely disappear. Just lately a lady consulted me for attacks of headache, which she said always occurred on the right side. She had often had slight experiences of muscular rheumatism, and sometimes she had had pains in her small joints, particularly in those of the fingers. Her family history showed the existence of rheumatism. Her daughter, just eleven years of age, is quite subject to migrainous paroxysms. There are no ocular

defects. The mother complains of feeling very languid in the mornings, and brighter in the afternoons and evenings. This is very typical. She says that she has been a free meat-eater, and that while nursing, she drank a good deal of beer and ale. This is a sample of many others.

There is one point to which I would specially call attention. It is that, just before an attack of megrim, and during the early period of the attack, there is almost invariably a very abundant passage of urine of low specific gravity and high acidity. From this feature alone many of my patients can tell that an attack is coming on, and can ward it off by a full dose of opium and the free use of the salicylates. The reasons for this line of treament I have already given.

Another striking feature of megrim is that patients so afflicted have usually morning headache. I have at the present moment before my mind a number of these cases. This morning headache passes away by noon, and the afternoons and evenings are usually spent comfortably.

In the case of children with headache while attending school, there is always a very noticeable irritability of temper. This irritability of temper and headache can frequently be shown to be connected with an excess of uric acid in the blood, and I find it just as frequently yield to a course of salicylate treatment, and the use of milk instead of meat.

One clergyman, now the principal of a college, told me that he would often not have been able to go through with his services on Sabbath had it not been for a free glass of acid sherry wine. Here we have the whole solution in a nutshell. The acid wine, for the time being, reduced the amount of uric acid in the blood, precipitated it out of solution, relieved the tense, hard pulse, gave the brain more blood, caused a free flow of urine, and enabled him to discharge his duties.

HYPERTROPHIC CIRRHOSIS OF LIVER.

With Report of a Case and Autopsy.[1]

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WHILE the clinical history and morbid anatomy of this rare form of chronic interstitial hepatitis may have been described as an anomaly occurring in the ordinary form of atrophic cirrhosis, it was not differentiated as a distinct disease until within comparatively recent years. To the French is due the credit of its recognition. The first mention as such was by Hanot in 1875, who reported a case of "hypertrophic cirrhosis with chronic jaundice." In the following year Charcot set forth its essential character so faithfully as to give rise to the appellation "Charcot's cirrhosis of the liver." Many English writers, however, are disposed to dispute its existence as a distinct form, and attribute the enlargement to fatty or amyloid infiltration. As exceptional complications, enlargement of the liver from these causes may occur in Laennec's cirrhosis, but the morbid change is characteristic of fatty or amyloid liver rather than of sclerosis, and bears no relation to the disease under consideration.

Professor Loomis, in his *Text-book of Practical Medicine*, as late as 1884, says: "There is a form of interstitial hepatitis that has been called hypertrophic cirrhosis, because the liver is markedly increased in size, sometimes reaching six or seven times the normal weight. But the fibroid change, the yellow staining, the atrophy of liver cells, the fatty change at the periphery of the lobule, are the same as in the ordinary variety, *the only difference being a marked increase in the size of the liver.*"

One source of error has arisen through failure to distinguish it from the first stage of atrophic cirrhosis, which is also characterized by enlargement. Macroscopically, should death afford an examination of the liver in the early history of the disease, the two affections might be confounded, but when pursuing their usual course, the atrophic form eventuates in diminution in size of the liver, while in the hypertrophic the enlargement progressively increases and always remains until the patient succumbs. Aside from the increased size of the organ, the clinical history is so widely at variance with that of atrophic cirrhosis as to imply a distinct disease, even were the pathology and etiology the same.

The degree of obstruction to the portal circulation is a discriminating point. Hyperemia of the gastro-intestinal mucous membrane, hematemesis, severe epistaxis, formation of hemorrhoids, petechial extravasation, enlargement of the internal abdominal veins and establishment of collateral channels of circulation, enlargement of the superficial abdominal veins and formation of the so-called "caput Medusæ," early ascites from increased tension of the portal circulation, with the characteristic globular abdomen so common in the atrophic form—these are wanting, or exist to a very slight degree. Instead of these there is early jaundice, intense and permanent in character, simple anorexia and nausea with constipation, whereas in the contracted liver the discoloration amounts to a slight dinginess or sallowness of the surface, slight yellowness of the conjunctivæ, and the gastro-intestinal disturbances form more serious complications—as nausea and vomiting, ulcerations of the mucous membranes, hemorrhages, diarrhea, and dysentery. The differential diagnosis of the two affections may be summed

[1] Read before the annual meeting of the Montour County Medical Society, June, 1891.

up as follows: In atrophic cirrhosis there is a slight enlargement of the liver, followed by contraction, with more or less nodular surface, early ascites, absence of jaundice, obstruction to the portal circulation, gastric disturbances with diarrhea, and a greater inclination to hemorrhages. In the hypertrophic variety there is progressive enlargement with smooth surface, absence of ascites, early jaundice, becoming intense and general, less obstruction to the portal circulation, less gastric disturbances, more frequent constipation, and little tendency to hemorrhages. In its pathological histology we would naturally expect to find the true differential characteristics. The morbid change is essentially the same as regards the elements; that is, in both forms it consists of hyperplasia of connective tissue, resulting in degeneration of hepatic cells. But the point of election in this proliferation of new material differs. In the atrophic form it has been clearly established that the initial deposit occurs around the radicles of the portal vein in the interlobular spaces, consisting of an infiltration of round and spindle-shaped cells that develop into a fibrous texture, that by shrinking resembles cicatricial tissue. The bands thus formed between the lobules or groups of lobules, are seen ramifying through the liver in various directions, and are still more highly organized by the production within their meshes of newly formed bloodvessels directly connected with the interlobular veins. The blood furnished the hepatic cells, both for nutritive and glycogenic and bile-producing functions, by the hepatic artery and capillary divisions of the interlobular veins, penetrates the lobule at the same point. By compression of these radicles the nutrition of the lobule is diminished or ceases, and atrophy of the cells results. Probably direct pressure of the interstitial deposit upon the periphery of the lobules assists slightly in producing this effect. The remaining healthy cells and those of contiguous lobules undergo hypertrophy, often amounting to two or three times the natural size. Thus, side by side, we have a hyperplastic deposition of connective-tissue elements associated with enlargement of hepatic cells, and a diminution of structure through contraction of new tissue and atrophy of other cells, producing in the progress of the disease either hypertrophy or atrophy of the whole organ according to which process preponderates. The interlobular bile-ducts survive the destruction of their respective lobules.

These changes in structure would necessarily produce obstruction of the portal circulation, while the bile, although decreased in amount through loss of secreting surface, is carried off in the usual way.

In hypertrophic cirrhosis the opposite condition prevails. The deposition of interstitial connective tissue has its origin in the radicles of the interlobular bile-ducts. According to French writers, "although no obstruction of the secretion nor inflammation can be demonstrated in the larger bile-ducts, the interlobular canals become dilated and ramify into finer ducts, forming immediately in front of the margin of the lobule a network from which still finer branches proceed, to disappear between the hepatic cells." This capillary network naturally lies within the peripheral zone of the lobule, but by atrophy of surrounding cells appears upon its margin and might be mistaken for newly produced vessels. "All these canals are lined with cubical epithelium; in the ultimate divisions the caliber often appears to be plugged with this epithelium. In the vicinity of these canals the indications of this new formation of connective tissue are the most distinct." "Hanot, as well as Charcot and Gombault, base upon these appearances the theory that in cases of hypertrophic cirrhosis accompanied with early jaundice the primary lesion consists of a (spontaneous) inflammation of the interlobular gall-ducts induced by some unknown cause, and that the interstitial proliferation takes its start from the walls of these ducts."[1] Frequently the process extends to the intralobular ducts, and minute bands of fibrous tissue are found penetrating the lobule well into its interior. Unlike the other forms of chronic interstitial hepatitis, the distribution of the new product is more regular, giving the cut surface a uniform appearance in color and consistence.

As the portal circulation is not extensively interfered with, the cell-degeneration through nutritive changes would be small as compared with that found in the atrophic form, and that that does occur is mainly due to pressure upon the periphery of the lobule. Likewise, for the same reason, the total amount of blood in the organ is but slightly diminished, although through increase of size there may be apparent anemia. The bile-secreting function is also less impaired, but by occlusion of the biliary radicles the bile remains in the lobules until absorbed by the bloodvessels and deposited in other tissues as a general icterus. The increase in size as compared with the atrophic variety is thus due to additions of connective tissue without a corresponding degree of cell-degeneration, less diminution of blood, and greater accumulation of bile.

With these preliminary considerations I have to report the following case that I deem of interest, as I have been able to find but two other cases reported in this country, one by W. Osler,[2] and

[1] Ziemssen's Encyclopedia of Practice of Medicine, vol. ix, p. 217 *et seq.*

[2] "Cirrhosis of Liver with Enlargement, No Ascites, etc." Montreal Gen. Hosp. Path. Reports, 1877, i, 56–60. Also reprinted in Canada Medical and Surgical Journal, Montreal, 1877, vi, 249–253.

another that occurred in the Massachusetts General Hospital.[1]

R. A. McC., female, aged sixty-nine, a native of Ireland, resident in the United States twenty years, the widow of a banker, was admitted to this hospital October 15, 1890. Her husband has been dead about twenty-five years. She has no living children, and she has had one miscarriage and several abortions. The history of the case is meager. She appears to have been more than ordinarily intelligent, of good family, rather fond of the good things of life, and from her own statement accustomed to alcoholic beverages, but to what extent was not satisfactorily ascertained. She says her father died, aged eighty, as also her mother and one brother, of phthisis. There was no hereditary neurosis, syphilis, gout, or rheumatism discovered. She was about the average height, slender frame, probably in health weighing 125 pounds.

On admission she was much emaciated and physically badly impaired, the pulse 108, full and regular. The heart-sounds were normal, the tongue dry and red in the center, the bowels torpid, facies dejected; memory for distant events fair, for more recent ones apt to be faulty. She was deeply jaundiced over the entire body. The liver was enlarged, as was evidenced by the increased area of dulness and the rounded edge felt below the line of the ribs, and it was slightly tender on percussion. There was no ascites or enlargement of the superficial veins, and the abdomen was rather flat in dorsal decubitus. The lungs were normal. The left leg was edematous, the right helpless and painful at the hip-joint, attributed by her to a fall sustained about ten days previously, but by authorities to an apoplectic stroke, for which there is now no visible proof. There are excoriations on different parts of the body, due to want of care. She is weak and entirely helpless, and was carried to the hospital on an improvised stretcher. The previous history was uncertain, but friends state in a general way that she had been ailing for two or three years and that jaundice had existed about a year.

The urinary analysis was as follows: Quantity diminished, color brownish-yellow, reaction acid, sp. gr. 1016, the odor offensive, with a heavy white deposit. It contains a large amount of bile, the existence of albumin not satisfactorily determined, but thought to be present. Microscopically it shows bacilli, pavement and round epithelial cells, a few leucocytes, granular matter stained yellow, a few granular casts, and leucin crystals. She was ordered nitro-muriatic acid, gtt. v, t. d., and a diet largely milk and soft farinaceous articles, with lean steak and eggs.

On November 8th, no marked change had occurred. The pulse was full and strong, the appetite capricious, the icterus continuing unabated. She complained of fulgurant pains in different parts of the abdomen and of looseness of the bowels (a false impression occasioned by tenesmus, the condition being in reality one of constipation). The edema of the limb has disappeared, and she has partially regained the power of the injured one. She remained helplessly in bed. On December 13th, the physical condition was somewhat improved and she was disposed to help herself. She was still deeply jaundiced, color of varying intensity. The bowels were kept regular by one-drachm doses of Rochelle or sodii phosph. once daily; the stools were clay-colored, of putty-like consistence, and much compressed from constriction of bowel. There were abdominal pains of paroxysmal character, lasting from three to four hours, which usually came on toward morning, and referred to different points. Pruritus was very annoying, and small abrasions have been caused by scratching. There was no dropsy. On January 20th, the jaundice had increased, some days the skin assuming a bronzed tinge, due probably to changes in the activity of the renal elimination. The bowels were unchanged, save that she passed small quantities of blood with the stool and complained of hemorrhoidal pains. There was tenderness on palpation over the entire abdomen, but this was most marked in the left lumbar region. She had pain in the groin and generally throughout the abdomen, with cramp-like paroxysms at irregular times. There was no ascites, but slight tympanites had developed. Pulse 84, full and bounding, but easily compressible; superficial veins somewhat distended; previously these veins were entirely emptied by slight stroking and were seen to very slowly refill, showing the low tension of the venous system. The tongue was clean, smooth in the center, and moist. The appetite was failing, and slow emaciation was going on. There were profuse sweats during sleep. On February 22d, the most noteworthy feature of the past month had been accession of a mild fever resembling hectic, the morning registration being 99.4°, the evening ranging between 100° and 101°, patient often mentioning chilly sensations. She had frequent slight epistaxis. On March 14th, enlarged lymphatic glands in the right groin were noted. A distinct tumor was now found occupying the right lumbar and inguinal regions, having a well-defined, rather sharp border anteriorly. Percussion elicited superficial dulness with deep tympanitic resonance, continuous with the line of the natural liver dulness. Occupying the exact position of the cecum and ascending colon, it had somewhat the appearance of a fecal accumulation. The bowels were moved regularly by means of laxatives. There were no gastric symptoms, but she complained of constant cramp-like pains in the epigastrium, probably due to pressure upon the solar plexus by the enlarged liver. There was no special pain or tenderness in the liver itself. From this time to April 25th, typhoid symptoms increased *pari passu* with the liver degeneration and diminished vitality, the temperature ranging between 99.5° and 100.4°. Subsultus with increasing hebetude were attending phenomena. There was no change in the icterus and character of the dejecta, and no hemorrhages. She complained of pain in the rectum; occasional nausea, no vomiting; feet becoming edematous through general debility, the liver steadily increasing in size. On May 3d, after an unusually restless night, she was

[1] A. L. Mason: Boston Medical and Surgical Journal, 1886, cxv, 281.

found with a pulse of 102, full and compressible, an axillary temperature of 102°, the bowels constipated, notwithstanding the usual laxative dose. She showed increasing signs of mental hebetude. On May 5th, the stupor was increasing and it was now somewhat difficult to attract her attention, but when aroused she answered questions. The stomach was still irritable, rejecting much that she took. She complained if moved or touched. Death occurred on May 7th.

Autopsy—seven hours after death. This showed that the body was greatly emaciated, probably weighing ninety pounds, intensely and uniformly jaundiced, the skin smooth and soft. The abdomen was much distended and tympanitic over the whole surface. A deep dulness obtainable over the right hypochondriac and lumbar regions. The lower border of the liver readily felt on palpation some distance below the line of the ribs. On opening the abdominal cavity, its walls and the omentum were found devoid of fat, the bowels much distended with gas, empty of solid material, normal in appearance, except the entire sigmoid flexure and most of the descending colon, about 1½ feet of bowel, which was evenly constricted and its coats much thickened; opened longitudinally, it measured from 1 to 1½ inches transversly. This change was evidently the result of an old colitis and explains the very attenuated character of the stools. There was no dropsical effusion in the peritoneal cavity.

The liver was much enlarged, extending downward into the right lumbar and across into the umbilical region. The lower edge of the right lobe occupied a line on the right drawn from the center of Poupart's ligament to the umbilicus, thence upward to the epigastrium, and across toward the left hypochondriac region. The lower edge of left lobe was sharp, while that of the right was more rounded and smooth, the natural contour being but slightly altered. The gall-bladder was much enlarged, and contained about 4 ounces of thin bile, without concretions. The weight of the liver and empty gall-bladder was 76 ounces. The capsule was somewhat thickened, and in places slightly adherent. There were also slight adhesions with the diaphragm and between the gall-bladder and bowel, showing an old peri-hepatitis. The surface was smooth or very finely granular, the color of the surface being not unnatural. The liver on section cut hard, the structure was dense and had the appearance of an extensive deposit of fibrous tissue evenly distributed throughout the whole organ. It was rather anemic and slate-colored. Patency of the common bile-duct was not determined. The kidneys were enlarged to 7½ ounces, the capsule adherent in places and showing somewhat the same degeneration as the liver. The spleen weighed 10 ounces and was considerably congested. The stomach was somewhat dilated with gas, but there was no evidence of gastritis or engorgement of vessels. The intestinal tract was also healthy, except as above stated. The mesenteric glands were not enlarged, and there was no evidence of engorgement of any abdominal bloodvessels.

From the general condition found, it is evident that the disease of the liver was one of hypertrophic cirrhosis.

I am indebted to my colleague, Dr. A. R. Elliott, for notes of the last few days of clinical history, and the post-mortem examination. Through inadvertence specimens were not saved for microscopical examination.

The various affections that might be mistaken for hypertrophic cirrhosis because associated with enlargement of the liver, are amyloid and fatty degeneration, cancer, and hydatid cysts. Amyloid degeneration is also characterized by an equal enlargement of the liver, smooth surface, firm, hard, resistant feeling, and a like enlargement of the spleen. But the edges of the liver are sharp, the affection is a painless one, jaundice is absent—the skin being pale and leukemic instead—amyloid degeneration of other organs occurs, and etiologically there is a history of syphilis, prolonged suppuration, or disease of the bones. Fatty liver does not attain the same size, has rounded margins, smooth surface, is soft and flabby. There is no splenic enlargement, an absence of jaundice, the skin shining with fat, and velvety. There is a disposition to fatty deposits in other organs, and no abdominal tenderness. There is a history of alcoholism, long-continued wasting diseases, and high living with sedentary habits. Cancer is accompanied by tenderness of the liver, hard nodular enlargement, giving it an irregular shape, more rapid development, cancerous cachexia, and frequently in the latter stage jaundice and ascites, an hereditary predisposition, and is usually secondary to cancer of other organs. Hydatid cysts present few of the symptoms of hypertrophic cirrhosis. The enlargement is nodular, large, smooth, soft and elastic, and without pain. The peculiar hydatid fremitus is sometimes obtained on percussion. By use of the exploring-needle a saline fluid, containing the hooklets of the echinococci, may be withdrawn, which settles the diagnosis.

The early stages of hypertrophic and atrophic cirrhosis cannot be distinguished from each other, but, as already pointed out, in the former variety as the enlargement progresses a destructive train of symptoms supervenes. In both varieties the inception is so insidious that remedial aid is not sought until the characteristic changes occur. The etiology does not differ essentially from that of the atrophic form, since in the majority of cases alcohol is the prime factor. Long-continued malarial affections, and certain infectious diseases—as typhus and cholera—predispose to the affection.

As regards prognosis, the disease when fully established is always fatal, after running a course of from two to five or more years, the termination usually being by asthenia, but frequently ending in a

typhoid state consequent upon toxemia. Convulsive seizures are not unlikely to occur.

The treatment is usually based upon the expectant plan—that is, the physician expects the case to die, and is seldom disappointed. For a systematic treatment the same remedies have been advocated that are used in the atrophic form—the iodides, mercury, muriate of ammonia, arsenic and iron.

In atrophic cirrhosis Semmola[1] regards an absolute milk diet as a positive remedial measure of undoubted curability, provided the regressive processes have not advanced to any great extent, and he even claims a diminution in severity of all the symptoms after such change has become thoroughly established. As the fundamental histological change — hyperplasia of connective tissue—is the same in both affections, the same benefit might be expected in the early history of the hypertrophic form. At any rate, as the principal indication is to maintain the general nutrition unaided by the function of the liver, we have in milk, if not too rich in fats, an easily digested article worthy of trial.

In the case reported, the measures adopted were: acid. nitro-muriatic. gtt. v–viij, t. d., during the first months; small doses of Rochelle or sodii phosph., artificial digestants, milk and farinaceous diet, with lean beef, fresh fish, and eggs. Small and infrequent doses of morphine were given to relieve pain when unbearable, and whiskey when the vital powers urgently required stimulation: manifestly a sustaining treatment, rather than one directed against the progress of the disease.

MEDICAL ETHICS GONE TO SEED.

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MUCH has been written in praise and in censure of our system of medical ethics. The question of the effects of the code on medicine and medical character has been so often brought up for discussion, either in the way of attack or defence, that it seems almost a waste of time to make it the subject of an additional essay. But the present wide prominence and damaging effects of certain misconceptions and practices arising out of these relations, and the great practical importance of forming a right estimate of them, would appear to demand a further, and continued, participation in their treatment.

The basis and general character of all discussion upon this fruitful theme are, curiously enough, comprehended in the general belief that medicine is practised under the dominion of a code of ethics and that the code is so universally, wisely, and impartially operative, that it is effectively employed in the redress of great wrongs and in the necessary defence of great rights, whether of persons or of principles, involving the welfare of medicine and of medical men. This flattering and partial view of the extraordinary power and efficiency of the code is based on the assumption that its provisions governing individual conduct are rigidly enforced. As a matter of fact, however, the code is nothing more than a kind of authorized creed, expressing, in fair language and spirit, the assumption by a class of certain moral and protective privileges and responsibilities. It dwells upon the physician's duty to his patient, to himself, his professional brother, and to society at large. It urges him to observe, in his professional walk and conversation, those higher graces of manner and feeling that in social life are the distinguishing marks of culture and refinement. It is pronounced, too, in its disapprobation, intolerance, and proscription of this and that and the other thing. But there are no powers in the code back of these visionary pronunciamentos that have the effect of sensibly influencing professional conduct at the present time. This, in a word, means that subscription to the code does not necessarily influence subsequent behavior, does not prevent a man from pursuing his own particular business in his own particular way.

It should be observed, perhaps, in this connection, that the successful operation of a law, or system of ethics, depends on more than the mere ability to punish violations of its provisions. It depends very largely on the intellectual and moral susceptibilities of the individual units composing the class it is designed to affect; and the character of the individual units in these provinces of the mind, is the result of primal and determining influences widely varying and remote, and comprehend man in all the relations of life. Men do not live and act and feel by generalized rules, and it does not appear to be in the economy of Nature, or rather it should be said in the economy of man, to devise a system of rules that shall compel men thus to live and act and feel. In the family government, where the conditions for their successful employment would seem most favorable, such rules are partial failures, or even something worse. The switch and moral suasion, used separately and in supposed judicious combination, have been tried in vain to subdue the rebel twists of human nature. Law, looking into a larger field, does not prevent the failure of banks, or bank presidents from sailing away to Brazil. The doors of our rum-shops are by law closed on the Sabbath day, but

[1] Transactions of International Medical Congress, Amsterdam, 1879.

the "speak-easy" flourishes in perpetual lawlessness, and so on to the end of the calendar, and through all the gradations of crime.

But, as to medical ethics, it should be remembered that the code was originally addressed to a profession that was supposed to be animated by a nearly common intelligence, resolution, and purpose. And the prevailing confidence in the unanimity of medical character and purpose was a partial justification of the belief that the code would be free from the oversights and inconsequences that in the very nature of things would follow an appeal to divided and antagonizing interests. It came into existence, moreover, at a period in the history of medicine when men were qualified by more than professional learning and experience for the practice of medicine. They were also qualified for it by general culture, by temperament, and by habits of life. They were keenly alive to professional questions and interests, entertained enlightened and very decided views concerning the better government of medicine, and opposed every movement that threatened, even remotely, to lower its ethical character. The code was born of this conservatism and devotion to high principle, and deservedly received the earnest and united support of the medical men of the time.

"Quantum mutatus ab ilio"—how changed from that—are the words Wycherly in his old age wrote under the portrait of his youth. We might apply them to the ethical character of medicine to-day as compared with the ethical character of medicine fifty years ago. We are living under a new medical dispensation, brought about by the readjustment of old principles to a new object. And that object is commerce.

It is the high genius and aim of trade, *per se*, to accumulate a large bank balance, to get itself on in the world by any and every legitimate means in its power. This is its proper business. Its vast resources and tremendous energies are engaged in hard-fisted, selfish enterprise. It has no refined sensibilities, recognizes in practice no self-retarding principles. It has no time to dream away in Arcadia. It says boldly, and with the true Gradgrind spirit and emphasis, "The devil fly high with ethics!" This is the case with medicine to-day. The code is obsolete. Its boasted omnipotence and security are attempted delusions. It offers nothing that excites the modern doctor's Yankee suggestion of readiness to take possession of a good thing. It does not create, enforce, or in any way practically sustain a line of conduct that the keen instincts and practices of trade shall respect and observe. It offers, on the other hand, no perceptible or admitted distinction to the man who is, by education and reason and good taste, ethical at heart and in practice. The burdensome vexation of a distinctly commercial purpose and a distinctly selfish personality in medicine have obscured all that was at one time so abundantly and beautifully predominant in the code and in medical character, and made them appear too remote and impracticable for everyday life. And this fact is made practically significant in more ways than one.

The most noteworthy and perhaps culpable departure from ethical consistency, and the one, moreover, that reaches furthest in its bad effects and consequences, was taken, and is even now industriously followed, by the medical schools of the country. I refer to the admission into medical schools of men who are, by earlier education and habits, utterly disqualified to assume the ordinary duties and responsibilities of professional life. And although the general evidences of the bad effects of a course so purely and undeniably selfish and commercial are plainly to be seen, selfishly interested persons will claim that the system is not selfish, or only partially and unavoidably selfish, and that it is the duty of the *State* to obviate the evils indirectly growing out of *illiteracy in medicine* by the introduction of a better system of public schools. This bold attempt to hide the truth under a false issue is what logicians would call a *non sequitur*, a consequence that does not necessarily follow from the cause. It is in truth a play of hide-and-seek with principles they are under some compulsion to outwardly observe. To show the utter fallacy of such conduct and reasoning, it is only necessary to observe that there is no law compelling the medical schools under its jurisdiction to accept all uneducated and feeble-minded persons who may apply as candidates for the doctor's degree. Their management, however, would suggest the operation of some such legal provision. The active cause, therefore, of the death and decay of medical ethics is justly attributable to the management of medical schools, and I venture the assertion that the cause is likely to continue active as long as the question of numbers is of pecuniary interest to those engaged in the responsible work of teaching.

The State may bestir itself and do something in the course of the coming century to check the hatching-out of doctors by the present unnatural and disgraceful process of incubation. It might, for example, exclude from medical schools men whose most labored efforts at correct utterance are murderous innovations upon the purity of the mother tongue, and whose orthography exhibits an utter disregard for monosyllabic propriety. It might even go further, and at once extinguish nine-tenths of the medical schools of the country, by making a rudimentary knowledge of grammar and arithmetic necessary qualifications to matriculation. It is idle to pretend that such an exercise of executive discretion and power, in a matter of

this importance, would be ill-advised or premature. For, in the absence of legal restriction, or like influence for good, we already have a very considerable outcropping of the evils thus bred in the professional bone, showing themselves in subsequent practice under the code.

The declension from once higher ideas, and from the stricter principles of honor and justice, is conspicuously shown in the growing tendency of medical men to advertise themselves. Men that are thus led by what they would doubtless call an "enlightened self-interest" to seek returns more substantial and marketable than the silent applause of an approving conscience, do not hesitate to whisper in the reportorial ear, through the intermediation of some judicious and obliging friend, the results of certain important performances. And it is a noteworthy fact, that the reports of operations and cures that by this road find their way into the daily prints with the performers' names duly heralded, are invariably of this significant character. Even the suggestion of a contemplated jaunt to London, Hong-Kong, or the moon, may, in the hands of an expert, be the means of exciting a very considerable public interest. In some instances it requires as many as a dozen notices, published in a score of newspapers at convenient intervals, to satisfy the public appetite for knowledge of this kind.

In conducting enterprises of this character it is not wise, of course, to expose oneself anywhere "below the level of a vulgar rectitude." However, the risk is inconsiderable, for in advertising, as in other forms of human enterprise, practice tends to a perfection of method; and it not infrequently happens that the well-known objections of the code to advertising are obviated by a resort to methods so adroit as to be absolutely illusive. Of this class is the clever copyist, the compiler of useless and confusing books that distract the reader's mind, impose on his memory, and waste his time. Of this class, too, are the men that overload periodical literature with the reports of cases that every physician treats familiarly, for the ostensible purpose of introducing a remedy already in universal use, or to warn the profession against the longer employment of a treatment that has been, by earlier and common consent, relegated to eternal limbo.

Another signal and comprehensive defect in the ethical character of the medical men of the day manifests itself in a glaring and inconsistent behavior in respect of proprietary medicines and formulas. There is hardly an item in the long list of multifarious traffic carried on by the proprietary man that is not used by, and advertised over the signatures of men whose opinions are somewhere treated with deference and consideration. A new humbuggery in the way of a temporary hanging-apparatus, corn-solvent, liver-restorer, or shin-plaster, has only to spring up in the night to find some medical man up and dressed and ready to serve it. Indeed, it looks very much as though the medical man of the future might be compelled by the exigencies of trade to advertise his fractional existence in the open markets of the world, to be inspected and purchased by the highest qualified bidder of a patent medicine, or else to eat his heart out in some obscure, unknown corner.

But this, it may be admitted, is an extreme view of the case. In one of two or three ways medical ethics of the higher sort are likely to be victorious over medical ethics of the lower sort, but the victory will be a costly one both to the conquerors and to the conquered.

In the first place, the fact that medicine is overridden and disfigured by an indirect, surreptitious, and grasping commercialism is too apparent to be hidden by any amount of sophistry and artificial logic. The main features of the question will, we may reasonably hope, be clearly discussed, patiently analyzed, and their fatal tendencies plainly stated. The effects of such treatment will probably be to bring the "saving remnant," the generous spirits, brave wills and clear heads in medicine, into a closer bond of union for defensive and offensive warfare against trade practices and relations. Secondly, the State government may be forced by an educated public sentiment to place medical education under the ægis of law. Or, thirdly, the evils may be destined to remedy themselves; for, *what will there be left in medicine to tempt the avariciousness of trade when its good character is destroyed?*

No one would attempt to deny the right of medicine to rejoice in its brilliant activities and achievements; but how ridiculous is the cant about its model general government! And what a paralyzing, what a drivelling conceit to claim, in the face of disproving facts that the subtlest influence of distorting prejudice cannot hide, that either the spirit or the letter of the code are observed in practice. The prevailing cry of Ethics, ethics! is like that other cry of "Peace, peace!" heard in the lamentations of Jeremiah, "when there was no peace."

1637 ARCH STREET.

ORIGINAL LECTURE.

THE PREVAILING EPIDEMIC OF INFLUENZA.

A Clinical Lecture delivered at the Pennsylvania Hospital, Philadelphia, December 19, 1891.

BY PROFESSOR J. M. DA COSTA, M.D., LL.D.

GENTLEMEN: This morning I shall show you some illustrations of influenza, exhibiting its different types, and make some remarks upon the peculiar features o

the epidemic of influenza, or catarrhal fever, through which we are now passing.

I shall first take up the case of Captain J. F., a hearty man in appearance, well built and strong, who came from his vessel to the hospital on the 7th of December. He was then sweating profusely, had moderate fever, and suffered with great shortness of breathing. His pulse was 108; temperature 101°; the respirations were 26 to the minute; but notwithstanding the fact that the respirations were only 26, he complained of much difficulty in breathing. In the further progress of the case, it was noticed that the face was flushed, and the dyspnea was attended by pain in the chest and in the back. With this were associated physical signs which did not indicate a pneumonic condition. In truth, upon examination, we found nothing in the chest, except here and there a considerable number of dry râles, with harsh respiration; there was no tubular breathing, and no signs of consolidation anywhere existed; though slight impairment of resonance at the lower part of the right chest pointed to some pulmonary congestion at this place. The expectoration was not blood-colored, and rather free. There was no sore-throat, but a very decided degree of laryngitis was present, as shown by great huskiness and almost complete loss of voice; absolute aphonia was never noticed. The urine was found to contain albumin in small amount and a few hyaline casts.

Here, at once, we meet with some points of very considerable interest. Not to detain you with too much detail, I will only ask you to notice, by this chart, that his temperature steadily but gradually declined, so that by the 13th it was slightly subnormal, and on the 14th it had found its way back to normal; afterward, for a few days, it was again subnormal, though it is back to normal to-day. The albumin and the hyaline casts have disappeared from the urine. The pain in the back and limbs, and the headache, which were early symptoms, left him before long. We may now consider the patient as absolutely convalescent. Before dismissing the case, however, I will examine his heart for you. I notice that the first sound is heard, though it is weak in relation to the size of this man; nor is the pulse strong, though you see what a heavily built man he is. The murmur that accompanied the first sound of the heart, early in the case, has disappeared. This is a point to which I especially call your attention.

The treatment consisted in chloride of ammonium for the bronchial affection; quinine, twelve grains daily, as a general tonic, which has lately been discontinued; the chloride of ammonium being stopped also. The tongue still remains slightly coated. The only treatment now needed will be a tonic; we shall give him one-fiftieth of a grain of strychnine, with two grains of quinine, three times a day. The cough is very slight, but you perceive that when the man talks, his voice is still hoarse; his catarrhal laryngitis is not entirely cured. For this condition we will use sprays. He has been using a spray of chloride of ammonium dissolved in Dobell's solution. This will be continued, and, in addition, if the laryngeal catarrh last, we shall make local applications to the larynx of zinc sulphate, ten grains to the ounce.

We shall now take up Case II. This patient is a Russian, aged about thirty-five. A definite history is difficult to obtain, from our inability to communicate with him. So far as we can make out, he had a previous attack in Russia; he had been ill this time for eight days before coming into the hospital, suffering with headache, loss of appetite, and constipation. The headache was the prominent symptom, and in a day or two after, he had a slight cough. On admission, his temperature was 100°, pulse 82; the respirations were 32; he had a coated tongue. He had no apparent disorder of heart or lungs, though subsequently a few râles were perceptible, scattered through the chest. After he had been in the hospital for a few days he became almost absolutely deaf. He had some sore-throat, but no loss of voice; redness and relaxation were seen in the throat, but no exudation. He had considerable pain in the back and in the abdomen. No albumin was found in the urine, and no tube-casts.

Now, in this case we have a peculiarity to note, to which I shall presently call your attention as being one of the striking features of the present epidemic. This man, who has been for ten days in the hospital, still has elevation of temperature. As you see upon the chart, the temperature ranges near 100°; the highest point attained under our observation was early in the case—101⅘°. It is fair to infer that he has passed with a slightly elevated temperature into the third week of the disease; for the history is that he was, for a week prior to admission, in much the same condition as when he came in. Notice the continued character of the fever, though not a high fever. Notice, also, that the continuous fever has existed with a slightly coated tongue, with poor appetite, with constipation, with languor and fatigue, with headache, but without eruption. Even with the closest scrutiny, we have never been able to detect any eruption of any kind upon his skin. Case II, then, is marked by continuous fever, though the fever is slight; marked by aural symptoms with headache, and also marked by the length of the case and by much general discomfort and prostration.

Case III will illustrate some further points that will serve to indicate the peculiar types of the prevailing epidemic. This patient has also had an illness of two weeks' duration; he is an elderly man, sixty-seven years of age, of good family history, and of good private history. He never had a previous attack; he was taken ill two weeks ago, with pain across the chest and in the abdomen; but no headache. He says that he was very much prostrated at first, and the resident physician adds that, from what he was able to learn, he was almost unconscious. He was admitted with a temperature of 100⅘°, pulse of 100, and respirations 28. There were no very marked catarrhal symptoms, no laryngeal symptoms, no sore-throat, no sweating. He was still complaining of pains in his chest and in the abdomen. The urine was normal. He was placed upon salicylate of cinchonidia, sixteen grains daily, in divided doses, and Dover's powder in small doses at night. He was also given tablespoonful doses of solution of acetate of ammonium every two hours. Under this treatment he has very much improved; the pains are almost gone, and he is less prostrated. As an additional feature in this case, it is to be noticed that he only had an elevated temperature for a few days. Upon auscultation, a few friction-sounds were detected in the left chest, toward the base; there was also some

harshness of respiration, in other words, a slight pleurisy with bronchial catarrh at this point. Now, the breathing there is feeble, but no friction-sound is to be perceived. He also is convalescent.

Before proceeding to a discussion of these cases, let me show one other, which I can briefly dismiss, but which I bring before you in order to make my review of this epidemic more complete.

Case IV is another Russian, twenty-one years of age, also suffering with fever, headache, and with congestion of the lungs more marked than in the other cases, but with no pneumonia. He had, however, and this is particularly why I have brought him in, what neither of the other cases have shown, a distinctly high temperature. Now, I will not go into this case further than to state that the temperature reached 104⅝°, with a pulse of 100, and respirations 28. But notice this curious temperature-chart. The temperature sank decidedly the day after admission. As we ascertained, the man had only been ill for three days prior to admission; the malady not having begun with a definite chill, but with a good deal of pain in the back and abdomen, also in the chest and in the legs. The temperature, I say, which on admission was so high, was the next morning 102°; it then gradually rose from that again, until on the third evening, forty-eight hours after admission, it had reached 103⅜°. Then, as you see, comes a long line downward, looking like a crisis, and the temperature drops from 103⅜° to 98⅝°—almost like a malarial attack. After this break no rise occurs of more than half a degree. This case was associated with marked sweating, and I will add that sweating still persists to a slight degree. The physical signs in the chest were never marked; there was some congestion of the lungs, and impaired resonance and many râles in the chest, but no consolidation of the lung.

With these four cases before you—although I could show you a great many more from the ward—let us proceed to consider the striking features of the disease now epidemic that they represent. Let us look at these cases as representing types of the malady; though, of course, what I shall tell you is not based solely on these four cases, but on a very large number that I have seen during the last two or three weeks, here and elsewhere; for in truth, the malady is very widely prevalent.

First, as regards the fever, two extremes are met with: the first is represeated by Case IV, the other by Case II. They are types absolutely dissimilar. Case IV, which you just saw, is marked by extraordinarily high temperature, rapidly declining, rapidly rising again to nearly the same point; then a marked fall and a termination by crisis; the whole occupying about one week. In Case II a continuous fever existed, which was so like typhoid that the question constantly arose, Is it typhoid? These are the two extremes. You will ask me, which of these two extremes is more common in the present epidemic. I answer, Neither. The most common form of the fever process that characterizes this influenza, or catarrhal fever, now epidemic, is represented neither by Case IV nor by Case II, but rather by the case you saw in which the fever was not very high or very prolonged. The temperature is not, as a rule, elevated. The case you saw with high temperature is indeed even more exceptional than the one with continued fever and comparatively low temperature. It ought also to be added that the high temperatures are apt to decline gradually and the case does not generally terminate by crisis, as in Case IV, so that this does not at all represent the average case, which is marked by a temperature without much variation and subsides by lysis rather than by crisis. Before dismissing the very interesting subject of the fever-temperature, let me call your attention to several points associated with it. In the first place, I do not remember in previous epidemics to have seen so many cases, like Case II, of continued fever-temperature, looking very much like typhoid. I could in truth repeat the histories of a number of cases observed during the last few weeks, with headache, with coated tongue, and with low fever, which belonged to the epidemic malady, but without red spots, with constipation, and with nothing of true typhoid about them.

Let me also call your attention to the fact that few of the patients have a distinct initial chill, though chilly sensations at the onset are common. I must also mention a peculiarity of the circulation. It consists in an extraordinary lowering of the pulse late in the disease, though sometimes seen before; a lowering that may show you a pulse in the fifties, most misleading and attributed perhaps to remedies, especially if digitalis has been given, but which belongs to the disease, and not to the administration of any medicine.

Albumin in the urine, with casts, hyaline and epithelial, is observed to be quite a common occurrence. This, too, is rather peculiar. It shows that there is a tendency to renal complication in the present epidemic, which is worthy of more notice than I can give to it this morning. I will only add that I have not found this albuminuria to be persistent. Retention of urine is not rare, especially in elderly persons.

On looking at the catarrhal symptoms, we are struck by the fact that there is infinitely more laryngeal catarrh than is common in the history of epidemic influenza. In the case of the ship-captain whom you saw first, he has not yet recovered his voice; and I have a lady under observation in whom the whole disease after the first few days expended itself on the larynx, and who still has aphonia. I may also add that a kind of aural catarrh is also encountered, attended by pain, deafness, and noises in the ears. These types are, to a certain degree, characteristic of the present epidemic; and we also encounter opthalmias preceding or attending the laryngeal and bronchial catarrh, with its harassing and obstinate cough. A remarkable fact to be noticed is that it is not unusual for the malady to subside with coryza, which may or may not have been present at first, or have been present and disappeared. Again, the catarrhal symptoms transfer themselves readily from one organ to the other. Great disgust for food, coated tongue, anorexia, are common; but intestinal catarrh and looseness of bowels I have not seen as often as in some previous epidemics.

Now, when we come to the other symptoms—the pains, the nervous phenomena, the sweating, the prostration—the present epidemic does not differ from other epidemics, except that, perhaps, pains in the bones and in the chest, and the sweating, are less prominent than in other epidemics, especially the one that occurred two years ago; but the nervous phenomena, the delirium, the headache, and other symptoms simulating

cerebro-spinal fever are fortunately much less common and grave, while the catarrhal form, as already stated, is more common. Yet there are cases showing the nervous system much implicated. I may refer to one I have seen in consultation, in which an old lady lay in a state of stupor on the tenth day, and was aroused with the greatest difficulty, only to immediately relapse into unconsciousness. No albumin was found in the urine, although it was repeatedly tested. There were no signs of delirium, merely absolute apathy and stupor. When spoken to, she replied, but immediately relapsed into stupor. She is a hearty old woman and had previously had good health, although changes in the arteries incident to her age had begun to take place. Great depression and despondency are seen in many cases, especially in old people, whose nervous systems are more depressed by the poison than those of the young. In many of these instances, after the febrile stage is over, the temperature is also depressed, and remains so for a considerable period. The most singular nervous disturbance I have encountered was in an old lady seen very recently with Dr. Allen, in whom the disorder was ushered in by a violent convulsion, the first she had had in her life. Her arteries were very rigid; the kidneys were sound.

One of the most curious features of the present epidemic is the prevalence of cases that at first glance seem mild cases of rheumatic fever. The joints, especially the wrist-joints, are extremely painful, only very slightly swollen, and doubtfully redder than normal; with the pain, which is great, there is some tenderness. We have two cases of the kind now in the hospital. One had, on admission, the injected eye, the catarrhal symptoms of influenza, with a temperature of 103°, that suddenly dropped to between 99° and 100°. There was a short cardiac murmur, which is disappearing. With the subsidence of the malady the pulse has gone down to 52. The use of the salicylates and quinine proved very beneficial, particularly to the joint pains. In the second, the fever was more continued, though slight; the catarrhal symptoms were marked, the joints very painful. There was no murmur. But under any circumstance the murmur cannot be accepted as disproving the nature of the case, and determining in favor of acute articular rheumatism; for I have already shown you that cardiac murmurs may be present in influenza. It is an interesting question whether these joint cases are due to the poison affecting the spinal centers. The endocardial murmurs mentioned are not, I think, the result of an endocarditis, but are of a functional kind.

The bronchial catarrhs form a very prominent part of the symptoms in the present epidemic, and are very obstinate. There are also many cases of congestion of the lungs, and of deep congestion more manifest in parts, forming a kind of bastard pneumonia. Yet true consolidation is also encountered. At the onset of the epidemic real pneumonia was rare. But now it is not so, and we are seeing the full proportion of this dreaded complication. Pleurisy, too, is encountered.

In this epidemic, as in others, we find influenza intercurrent. I am thus seeing at present, with an eminent colleague, a case in which at the beginning of the fourth week of typhoid fever the temperature suddenly went up to over 104°, catarrhal symptoms and loss of voice showed themselves, and the epidemic poison became most manifest.

I have now given you an outline of the disorder as we encounter it in its varied phases, and have compared, as far as here possible, the symptoms with those of previous epidemics. You will naturally want to be informed if the earnest researches of the last few years, during which influenza has been in many countries so prevalent, has given us any clearer knowledge of its cause. Unfortunately not. The malady is generally assumed to be due to a microbe. But this is but a probable and intelligent assumption; for the microbe has not been found.

The great majority of the cases are light. Yet this epidemic is like all preceding ones, swelling frightfully the list of mortality. The old and the infirm, when attacked, speedily succumb. It destroys the weakly, and extinguishes the vital spark wherever it is flickering. Indeed, people no longer talk of the malady, as a few years since, with the jaunty air of amusement. It is beginning to be realized that a widespread epidemic of influenza is a national calamity.

In conclusion, I wish to say a few words about treatment. Besides advising, of course, what is self-evident, that local treatment must be instituted to relieve the laryngeal and aural catarrh, by the usual means, I ask you to watch the chest most closely. We have dry-cupped some of our patients with most evident relief and benefit. Has any specific been found? is there any treatment that the large experience of the last few years has demonstrated to be akin to specific? I wish I could so state. You know that we live in an age of thought about microbes and microbe-hunting, and it is almost inevitable that our therapeutics should be tinged with the theory of a germ to be destroyed; indeed, you can hardly take up a medical journal without seeing a number of remedies advocated that are to affect the supposed germ. Some of them may do good, possibly, even probably; yet I would not advise you, in treating influenza, to rely upon any remedy solely because it is a microbe-destroyer.

But there is no doubt that our tried friend, quinine, is of value; whether it is because it destroys microbes or not, I cannot say. However, in some cases, when there is a good deal of headache and pain through the body, we substitute the salts of cinchonidia, selecting the salicylate, given in daily doses of from 12 to 18 grains. We must also keep up the action of the skin, and if there be not much sweating, I am in the habit of using the solution of acetate of ammonium with small doses of morphine. In all cases, too, the strength must be looked after, and elderly persons generally require stimulants.

In instances of much pain in the head and aching in the bones and muscles, Dover's powder in small doses is beneficial, and it or codeine also helps the irritating cough. In others, we gave antipyrin or phenacetin, grs. iij, with quinine gr. i, in powder or capsule, every two or three hours, until the pain is strikingly modified. One of my patients has become so attached to this prescription that he carries the capsules with him constantly to have them on hand, for he is thus sure of relief; and the combination also relieves the pains that may continue after the influenza attack has passed away. But phenacetin

and antipyrin are powerful agents, and are only to be employed under the observation of the physician. These are strong drugs, in their way as effective as strychnine, opium, or arsenic, and should not be used except under medical direction.

I will conclude this summary of treatment with the advice to you to look after the heart even in convalescence, and for the cardiac weakness, or the slow action which may persist, you will find no remedy equal to strychnine.

Again, impress upon everyone this rule: Give up early, do not go out too soon. The community that learns this quickest will have learned to avoid much suffering and disaster.

CLINICAL MEMORANDA.

CASE OF ANTE-PARTUM HEMORRHAGE IN WHICH THE PLACENTA WAS NORMALLY SITUATED.

BY F. M. GREENE, M.D.,
OF GREEN DALE, KENTUCKY.

MRS. M., a multipara, was just entering upon her ninth month of gestation, when she slipped upon a piece of ice, partially fell, and in recovering the erect position she felt a sharp, lancinating pain in the left side near the fundus of the uterus. She kept upon her feet for two hours without discomfort, but at 1 o'clock she suddenly felt weak and faint, and while attempting to get into bed syncope came on and she fell across the bed. She remained unconscious for some time, there being no one present save a little son, who could render no assistance. At 2.30 o'clock her husband came in and found her lying in this position and thoroughly chilled. He assisted her to bed, placed hot irons to the extremities, gave her spiritus frumenti, one ounce, and sent for a female assistant.

On the arrival of the latter the patient informed her that her "waters had broken," which, on examination, proved to be blood, and several clots were discovered upon her clothing and bed. I was sent for, and arrived at 4 P.M., finding the patient much agitated and alarmed, the face and lips blanched. She complained of no pain; the pulse was 100, weak and compressible. Examination revealed a large clot in the vagina, which was removed. Hemorrhage had ceased. Palpation showed the uterus moderately contracted, with a slight swelling or enlargement near the fundus on the left side, and which was painful on pressure. The condition of the fetal circulation could not be determined, as the placental souffle could not be heard. The os was dilated to the size of a dollar, the membranes slightly tense and protruding, the vertex presenting. A broad bandage was drawn with moderate tightness around the abdomen and secured.

The patient now rested for an hour and a half. There was little or no hemorrhage, but there was a complaint of great fulness, with dull pain over the enlargement at the left side. Having no Barnes dilators, I proceeded as follows: The patient was placed in position for podalic version, the bandage was loosened, and with the palms of both hands, at first moderate and then firm pressure was made over the uterus. This was continued during three distinct contractions, when the assistant took my place and continued the pressure. The os was now found almost fully dilated, and the membranes were ruptured. During the next contraction the vertex was found distending the perineum. The patient was thus saved from the shock and hemorrhage that would necessarily have followed version. As the head emerged the cord was found coiled once around the neck. The cord was released, but was pulseless and flaccid. A single contraction now completed the second stage.

The infant was placed in a warm bath, and after five minutes no further attempts were made at resuscitation.

The assistant had in the meantime kept up constant pressure, and there had been considerable discharge of blood during the passage of the fetus. The placenta was now found blocking the os, presenting by its maternal surface, and partly within the vagina. I now employed Credé's mode of expression of the placenta. There immediately followed a large clot, of placental shape and very firm. The pressure was now continued for one hour by the assistant, when the bandage was readjusted, half a dram of fluid extract of ergot given, and the patient put to bed. Convalescence was normal.

The constitutional symptoms from loss of blood were greater than the quantity discovered on first examination would justify, and in this respect the case resembled one of concealed hemorrhage. The clot probably caused the unusual swelling over the placental site, and was composed both of fetal and maternal blood. The blood, finding its way between the membranes and walls of the uterus, escaped externally, causing the protracted syncope, during which the child perished. Just previously the mother had felt active fetal movements; afterward none at all.

Although the indications were to bring about immediate delivery, the os was not sufficiently dilated, and hence the delay. Finally, as an excitor of uterine action, pressure was chosen instead of ergot or other ecbolic, and contractions were brought about sooner than could have been done by the latter; beside, pressure has the advantage of being completely under the control of the accoucheur.

FRACTURE OF THE NECK OF THE RADIUS AND BACKWARD DISLOCATION OF THE ULNA.

BY C. G. DARLING, M.D.,
OF ANN ARBOR, MICH.

MR. M., a moulder, thirty-five years of age, short and muscular, in wrestling put out his left hand to save himself in falling. There was a snap as the hand touched the floor, then the forearm seemed to turn backward on the arm.

This in substance is the patient's description of the accident twenty minutes after it happened. The injury seemed to be confined to the elbow, which was not much swollen and was partially flexed. The olecranon process projected far backward and above the line of the condyles of the humerus, while the radius seemed to lie

wholly anteriorly to the humerus. There was free lateral motion, so that the forearm, when not supported, would swing from side to side. The least movement caused intense pain, and as nothing was to be gained by prolonged examination, I at once attempted reduction. This proved not to be difficult, for the head of the ulna slipped readily back into place.

Slight rotation at the wrist now produced crepitus, and there was still some deformity near the elbow-joint. The head of the radius was found in its proper place, but half an inch below there was a fracture that seemed oblique, with the short side of the upper fragment above, while the upper end of the lower fragment was drawn upward.

The fracture was easily reduced, but a proper position of the fragments could not be maintained with the elbow at a right angle. After several unsuccessful attempts to keep the fragments in place, the arm was placed at an obtuse angle—nearly straight. In this position the lower fragment was drawn against the upper by the action of the biceps muscle. Here it was quite firmly held, and dressed with an anterior angular splint and a bandage firmly applied.

If we form an opinion from the number of reported cases, fracture of the neck of the radius must be exceedingly rare. Packard ventures the statement that he knows of no instance in which the neck of the radius was broken by itself. Hamilton says that, uncomplicated, it is exceedingly rare; that he knows of but one anatomical specimen of this fracture. In his work on *Fractures and Dislocations*, he reports three cases regarded by other physicians as fracture of the neck of the radius. Some time after repair had taken place these persons were brought to him for treatment. He states that dislocation of the ulna may be complicated by fracture of the radius, but gives no reference or report of cases. Gant, in his *System of Surgery*, gives one illustration of fracture through the neck of the radius—the Mütter specimen that Hamilton figures as the only one recorded. Dr. Fowler, in *Holmes's System of Surgery*, says that authors differ considerably in their estimates of the comparative frequency of fracture of the neck of the radius, chiefly as a result of the difficulty of making an absolutely certain diagnosis. Stimson, in his complete work on *Fractures and Dislocations*, which covers nearly all references to be found on fractures of the head and neck of the radius, mentions one doubtful case of fracture of the neck of the radius, complicated by backward dislocation of the ulna. He says our knowledge of fractures of the head and neck of the radius is drawn from about a dozen specimens and two or three doubtful cases. Recently he has added to the list one that occurred in his own practice. Dr. Nancrede informs me of an unreported case of fracture of the head of the radius with backwad dislocation of the ulna occurring in his practice.

The case that I have reported was treated as an ordinary fracture near a joint. The partially flexed position was maintained for six weeks; then I began passive movement, and twelve weeks from the date of injury all dressings were removed. It is now five months since the injury occurred; the arm can be extended almost to the normal position, and can be so much flexed that the hand can be brought to the face. Supination and pronation are limited, but are well performed. The angle naturally existing at the elbow in extension with supination is greater in the injured arm, showing that the radius is shortened.

What is the evidence of fracture of the neck of the radius? Crepitus could be produced when the elbow and head of the radius were fixed. Marked deformity was shown when the elbow was flexed and the biceps was contracted, the head of the radius still remaining in place, while the upper end of the lower fragment was tilted upward. There was also slight shortening of the radius after union had taken place.

How may the injury be explained? An examination of the radius of an adult shows a marked angulation at the tuberosity, and also that the neck is the weakest part of the bone. Any great amount of force applied to the lower end of the radius and continued through the contraction of a powerful biceps with the arm in a partially flexed position would cause a yielding at the neck. My patient, in falling, probably threw most of his body-weight on the radial side of the hand, the elbow being slightly flexed; at this moment the biceps contracted, and the result was a fracture. A large part of the support to the elbow-joint was now lost—the radius and the biceps muscle—and the forearm turned backward far enough to produce a dislocation of the ulna.

POLYURIA IN PHTHISIS CONTROLLED BY FULL DOSES OF ERGOT.

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FORMERLY ASSISTANT PHYSICIAN AT THE ST. LOUIS CITY HOSPITAL,
ST. LOUIS, MO.

H. E., a mulatto, thirty-one years of age, entered the City Hospital November 7th, with well-marked symptoms of pulmonary tuberculosis. No tuberculous trouble could be located elsewhere than in the lungs. Whether the symptom about to be described was due to tuberculous deposit in the kidney or in the neighborhood of the controlling cerebral centers in the fourth ventricle could not be satisfactorily determined. During the preceding October the patient had for the first time been somewhat annoyed by frequent, copious, and persistent micturition. Examination of the urine gave the following result: Acid reaction; specific gravity 1004; no albumin, sugar, or casts. But the quantity of urine voided was very considerable, as the following record will show:

	C.c.	Pints.
Nov. 14–15	5,000	10.0
" 15–16	10,400	20.8
" 16–17	8,200	16.4
" 17–18	10,600	21.2
" 18–19	9,100	18.2
" 19–20	7,200	14.4
" 20–21	6,000	12.0
" 21–22	4,400	8.8
" 22–23	2,400	4.8

The marked and steady decrease of urinary excretion after the 19th was due to the administration of rather large doses of fluid extract of ergot. One c.c. doses were given frequently, about 8–10 c.c. being taken daily. The quantity of urine at once began to diminish, and did so steadily each day, declining from 10,600 c.c. to

2400 c.c. per day, at which latter figure it remained until the dose of ergot was discontinued or was made much smaller, when a rapid rise in the quantity of urine took place. This was again brought well under control by increased doses of ergot. The patient succumbed to his pulmonary affection in a few months. Polyuria existed until shortly before death. The autopsy revealed only pulmonary tuberculosis.

MEDICAL PROGRESS.

Phthisis and Tuberculosis Pulmonum.—In support of the view of the non-identity of phthisis and pulmonary tuberculosis, LANGERHANS (*Berliner klin. Wochenschr.*, No. 42, 1891, p. 1034) has reported a case in which tubercle-bacilli were found in the sputum during life while phthisis was not found after death, and a second case in which phthisis was found after death while no tubercle-bacilli could be found in the tissues or secretions. The first case was in a tailor, sixty-eight years old, who, for two years, had complained of cough of progressively increasing intensity. A week before death, a severe chill occurred, followed by decided dyspnea. The sputum was partly purulent and partly rusty, and contained both tubercle-bacilli and diplococci. At the autopsy fibrinous pneumonia of the upper lobe and of the lower portion of the lower lobe of the right lung, with edema, was found. At the apex there was some slate-colored induration and cicatrization, and a number of light-gray, submiliary nodules. The bronchi were dilated and contained purulent secretion. No ulceration could be detected and no unequivocal tubercles were found. The middle lobe of the right lung was partially atelectatic. The upper lobe was small, shrunken, and dense. On section, slate-colored lines, crossed by dilated bronchi, were seen. At the apex were a number of transparent, light-gray, submiliary nodules. The purulent secretion contained many tubercle-bacilli.

The second case was one of myelitis in a man, fifty-four years old, who presented cough, shortness of breath, moist râles, and blowing breathing. When the autopsy was made, fibrinous pneumonia of the lower portion of the upper lobe and of the adjacent portion of the lower lobe of the left lung, and of irregular distribution in the right lung, was found. In the airless portion of the upper lobe the bronchi were dilated and contained purulent secretion and thickened, caseous masses; the mucous membrane was in places ulcerated. The corresponding pulmonary structure was partly atelectatic, partly hepatized. A large bronchus of the upper lobe was compressed by a tumor as large as a walnut and its lumen obliterated. Other nodules found in the mediastinum proved to be round-celled sarcomata. Tubercle-bacilli were carefully sought for, but none were found.

Two Cases of Traumatic Rupture of the Intestine Successfully Treated by Laparotomy.—JAHODA (*Wiener klin. Wochenschr.*, No. 45, 1891, p. 837) has recorded two cases of traumatic rupture of the intestine in which, in the one eighty hours and in the other twenty-five hours after the accident, laparotomy was performed, with subsequent recovery. The one case was that of a previously healthy man, forty-four years old, who was struck in the abdomen by a wagon. Consciousness was lost. On its return there was intense abdominal pain, tympanites, hiccough, constipation, and feculent vomiting. The operation occupied fifty minutes. A beginning putrid peritonitis was found. In the small intestine was a rupture about three-quarters of an inch in diameter. The opening was closed by means of six Lembert sutures, the abdominal cavity irrigated with a 1 per cent. solution of salicylic acid, a drainage-tube introduced, and an appropriate dressing applied. The operation was followed by threatening collapse, but reaction set in. The subsequent course of the case was favorable, and the man was dismissed at the end of seven weeks. The second case was that of a woman, twenty-eight years old, who, after having received a blow upon the abdomen, presented pain, nausea, bilious vomiting, retention of urine, and tympanites. The operation occupied ninety minutes. When the abdomen was opened, about three pints of brownish fluid of an inoffensive odor was found in the peritoneal cavity, together with evidences of a fibrinous peritonitis. About three feet from the ileo-cecal valve a rupture about two-fifths an inch in diameter was found in the ileum. The opening was closed by means of ten Lembert sutures, the peritoneal cavity was irrigated with a 1 per cent. solution of salicylic acid, and a graduated suture introduced; no provision was made for drainage. In the course of two months the patient was dismissed in blooming health.

The Utility of Tuberculin in Experimental Tuberculosis of the Eye in Rabbits.—At a meeting of the Society of Physicians of the Charité, DÖNITZ (*Deutsche medicin. Wochenschr.*, No. 47, 1891, p. 1289) reported a series of observations in which, by injections of tuberculin, he had succeeded in saving the eyes of rabbits previously inoculated with tuberculous matter. In the animals thus treated the tuberculous process pursued a more rapidly progressive course than in the untreated animals, but ultimately a point was reached when the process becomes regressive, and if the treatment was continued, in the course of three or four months complete functional recovery finally ensued. His investigations lead Dönitz to conclude that tuberculin is a reliable remedy for experimental tuberculosis of the eye of the rabbit. The activity of this agent becomes evident only after tubercles can be microscopically demonstrated. The first effect of the action of tuberculin is a transient but severe irritation of the eye. With the continued action of tuberculin the irritation of the eye subsides. If profound destructive lesions have not preceded the institution of treatment, the functional efficiency of the eye is restored; otherwise atrophy results. To effect a cure it is necessary that tuberculin be given in progressively increasing doses, and that a persistent and not too slight reaction be maintained.

Antipyrin in the Diarrhea of Children.—ST. PHILIPPE (*Journ. Méd. de Bordeaux*) recommends half-grain doses of antipyrin every two hours for diarrhea in children from one to six months old, grain-doses for children up to one year old, and grain-and-a-half doses for children up to three years old.—*Deutsche medicin. Wochenschr.*, No. 44, 1891.

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OF MEDICAL SCIENCE.

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SATURDAY, JANUARY 2, 1892.

PRACTICAL RESULTS OF CHARITY-ABUSE.

THE MEDICAL NEWS of November 22, 1890, contained an article in which the endeavor was made to point out the wrong of indiscriminate charity on the part of hospitals and dispensaries, and to forewarn the profession that the practice was liable to bring about a disastrous revulsion of feeling on the part of the kind-hearted benefactors whose gifts made these institutions and their workings possible. It was argued that the profession owed its younger members some justice and protection; that, putting a premium on pauperism, the custom was often a curse to the recipient; that the charitable public had supposed that it was giving to the needy and not to those able to pay for medical service, and that consequently when the knowledge of the deception should, as it must, finally become well known, deserving charities would be suddenly and savagely checked, and that that medical education dependent upon abundant clinical material would be harmed by withheld subscriptions.

The word of warning fell upon deaf ears. The abuse of medical charity has progressed until, in the rivalry of hospitals for patients, it has become simply ludicrous.

Mark, now, the beginning of the end: The public "Hospital Sunday" subscriptions to the London hospitals this year fell short of the amount given last year by the tremendous sum of $330,000—a fact not to be explained by "hard times," etc., but indubitably explained by the sensible conclusion of sensible men, that there is quite enough real want in the world crying for relief, without encouragement of sham and lying on the part of those able to pay for medical attendance. Those that feel moved to pity by the diseases and suffering of the poor are very liable to have even that praiseworthy sentiment frozen by the thought that their charity is trebly prostituted: 1. To relieve the undeserving that are capable of self-help; 2, by just so much deducted from the due of the needy deserving; and, 3, by the fact that the younger, struggling members of a noble profession are denied their proper *clientèle* by a vicious, unnecessary, and debauching system of encouraged pauperism.

Fast upon the mistaken teachings of many centuries is coming the widespread recognition of the very certain truth, that indiscriminate charity is always indiscriminate wrong. It is a progressive curse, doubling the evil it would halve. But organized and discriminate charity may be made as powerful an agent of good.

Every visiting or resident hospital or dispensary physician that treats patients (except, of course, in emergency cases) without first having made sure by questioning or by some systematic investigation that the patient is needy or deserving, thereby deceives those that originally gave the hospital funds; he puts a premium on pauperism; he encourages a cowardly sort of socialism; he deprives by so much the worthy and needy of their intended and proper care; and, lastly, he degrades the profession to which he belongs.

RESPONSIBILITY AND INSANITY.

SOME time since, in one of our large Eastern cities of the United States, a public officer stole from the people a million or two of dollars. Three well-known physicians of the city were at once quoted in the newspapers in lengthy paragraphs, the essence of their testimony being that the scoundrel was the victim of insidious and progressive cerebral disease, and therefore, of course, irresponsible; the insane asylum, not the prison, was his proper home. This exhibition was a particularly flagrant and outrageous specimen of what is going on about us all the time. Even supposing the contention true (though in

this case it was not true), and supposing that all criminality and crankism are the product of abnormalism of cerebral structure, the publication of the fact in the daily newspaper is wrong: 1, Because such publication brings the medical profession into disrepute—proof of which is patent, but an instance is to follow—and, 2, Because it is wrong for physicians to deliver professional opinions through the agency of the reportorial mind.

The most popular of our American after-dinner orators, in a public speech last week, used these words: "As we have evoluted the theory [of insanity], it threatens to empty our prisons. The old-fashioned way was to lock up people who endangered life or property, or did deeds of violence, for a statutory period; but the new idea sends them to an asylum, to come out in a few months, to the glory of the professional gentlemen who have wrought a wonderful cure, and the terror of the community which is the victim of these experiments."

Now, it is easy to say of this, that it has no more value than the usual post-prandial wit born of champagne bubbles; but a moment's serious reflection will show that this is to shirk responsibility, and hedge the margin of an ugly precipice with rose-bushes. It is idle conceit and partisan bias to neglect the signs of popular mirth mingled with disgust *in re* "the insanity dodge." Doubtless, the bull-in-the-china-shop wrath of Lord Demos has hung and imprisoned many a poor devil that should have had medical treatment instead of punishment. But nowadays there is little danger of that extreme, and very much danger of another the reverse of that. It is brave and often necessary to defy wrong public opinion, but to insult it is something worse than useless, and is apt to be followed by a boomerang effect.

With great travail, scientific medicine is valiantly pawing to get its hinder parts free from the noose of a belated medievalism and the slime of quackery. With slow and labored progress she has risen above the amused contempt of society and literature, and is attaining a position of the highest dignity and honor. There are few ways of undoing this more effective than to encourage lay scorn by an exaggeration of the pathological aspect of criminality. To smudge over or wipe out the delimiting lines of ethical laws, to deny the value, older than the Decalogue and more unerring than instinct, of responsibility, to define sin as disease—all this, were it true, would be impolitic at present. But it has also the excellent misfortune of being in the main untrue, and the shrewd, subtle wisdom of common sense will wink and sneer at the expert testimony vitiated by such unscientific and sorry prejudice.

PALPITATION OF THE HEART.

THE term palpitation is sometimes broadly applied to designate increased force or frequency or perverted rhythm of the action of the heart. It were preferable, however, to restrict the application of the term to the designation of the *subjective* sensation of deranged cardiac action, independently of the character or the cause of the derangement. The action of the heart, as determined by physical examination, may be gravely disturbed, and yet the patient not have the slightest intimation of any abnormality. Here the use of the term palpitation would be manifestly inappropriate. Under ordinary conditions, in health, the individual is totally unconscious of the pulsation of the heart. There may be increased frequency of action both in health (during digestion) and in disease (in febrile conditions), and the patient still be unaware of such pulsation. This surely would not be called palpitation. On the other hand, the individual, under certain conditions, may be alarmed by his sensations when, on auscultation, one is unable to detect any abnormality of cardiac action. This would constitute the simplest type of palpitation. It cannot be denied, however, that in many cases in which abnormal sensations are referred to the heart the action of the organ is deranged. The point that we wish to make is, that palpitation essentially consists in the *sensation*, and not in the physical phenomenon, which is but incidental.

The significance of palpitation, employing the term in the limited sense indicated, is a widely variable one. Of itself the manifestation affords but little aid in prognosis; it is of no diagnostic significance whatever, except it be by directing attention to the heart; it gives no indication for treatment that is not more unequivocally given by other symptoms. The smallest number of those that complain of palpitation have disease of the heart; the largest number are dyspeptics; while the intensity of suffering that may be induced in a hypochondriac is sufficient to give rise to a condition of pseudo-angina. In these, of course, the most brilliant results are to be obtained by careful attention to the secretions, to the digestion, to the

food, and to the mode of life. Even in cases of organic disease of the heart, a distressing symptom may be relieved by the removal of mechanical conditions dependent upon abdominal distention and gastric dilatation, or of irritating influences acting upon the peripheral terminations of the pneumogastric nerve. Among other common causes of palpitation of the heart, other than organic disease, are the excessive use of tobacco, of tea, of coffee, of alcohol, of certain drugs, hunger, loss of sleep, fatigue, exhaustion, sexual excesses, hysteria, and great muscular effort. The manifestation disappears with the removal of its cause.

THE INDIVIDUALITY OF DISEASE.

FROM text-books and didactic lectures the medical student learns the typical and characteristic symptoms of various affections, and comes to imagine that every disease has clearly-bounded limitations and easily-defined features. It seems to him easy to classify all pathologic conditions, and it also seems that given cases must by their own gravitation settle into distinct groups, and each become recognizable as this or that specific disease. But active practice soon dissipates all such agreeable anticipations. Despite systematizations and cataloguings and scientific generalizations, essential biologic facts refuse such harnessings. There are none of these facts that more intimately come under the spontaneous play of living forces than those of disease; and, if conscientious, the young practitioner soon finds himself at odds with his teachings and preconceptions. Actual diseases do not submit to being jammed into definite classes. There are few or no typical, uncomplicated cases of disease. Complications and possible complications blur all outlines, and every case becomes an individual study, that must be weighed with a quick intelligence, and met with answering adaptations to ever-varying and ever-variant abnormalism of function. Thus the keen mind learns to unlearn rules and systematic classifications, and seeks to gain a subtle intuition and vivid insight into vital conditions and morbid processes. An experienced physician will reach conclusions by means of a hundred little observations and "short cuts" that he will find impossible to explain or to teach to another. Some men have a positive genius of insight into living pathological processes. Nothing, indeed, can take the place of first-hand intelligence. Clinical work, not text-book or quizzing drill, must be the test of medical capacity. There can be no question that in medical colleges there has been an over-emphasis of the value of didactic instruction, and that greater attention must henceforth be given to practical bed-side work. It is a wretched shame that thousands of young physicians have been sent forth to their life-work without personal experience in the recognition and treatment of the many forms of inter-blended, masked, and complicated diseases that are present in almost every sick person.

THE RATIONAL SIGNS OF DISEASE.

To those phenomena that are the direct results of derangement of function may be restricted the designation "rational signs"—in contradistinction to the physical signs, which are developed as the result of conditions purely physical. The distinction is a vital one and of the greatest importance to the clinician. The rational signs represent the functional, the physical signs the structural, results of disease.

In a general way the physical signs make the pathological diagnosis; the rational signs the clinical diagnosis. The rational signs also afford important indications in treatment, and thus aid in the therapeutic diagnosis. The existence of a valvular lesion of the heart, as determined by physical examination, of itself by no means indicates the institution of treatment. This last must be decided by the evidences of disturbance of the functional equilibrium (in the case of the heart described as ruptured compensation): the palpitation, the dyspnea, the dropsy, the weakness, the coldness—in a word, the rational signs.

Under certain circumstances the establishment of the diagnosis essentially depends upon the rational signs. Disease of the muscular structure of the heart may give rise to no obvious physical signs; a deep-seated abscess of the liver may not be accessible to palpation and percussion; so-called central pneumonia may elude the most careful and the most expert physical exploration; and the same may be said of diaphragmatic pleurisy. Most diagnoses by exclusion are based upon the rational signs, which thus may be said to represent an empirical mode of diagnosis.

REVIEWS.

A TEXT-BOOK OF PHYSIOLOGY. By M. FOSTER, M.A., M.D., LL.D., F.R.S., Professor of Physiology in the University of Cambridge, and Fellow of Trinity College, Cambridge. Fourth American, from the Fifth English edition, thoroughly revised, with notes, additions, and two hundred and eighty-two illustrations. Philadelphia: Lea Brothers & Co., 1891.

FOSTER'S Text-book of Physiology is so well known that a new edition needs but little comment, except to call attention to its excellences and to commend it to all readers; for practitioners of medicine as well as students of physiology will here obtain in a readable form an admirable account of the present state of physiological science. When the merits of this work are considered it is not at all remarkable that it should have passed through four editions and that a fifth should be called for in the space of twelve years. With each successive edition the author has not only incorporated a large number of new and apparently well-established facts, but he has rewritten many of the paragraphs, so that the work represents the present status of many physiological problems. Should anyone desire to obtain an accurate knowledge of physiological processes, as well as to be informed as to the direction in which modern investigation is tending, no better work can be studied than this of Professor Foster. It is unencumbered with details of experiments, with descriptions of elaborate forms of apparatus, with extensive tables of unimportant facts—all of which, however valuable and instructive to the investigator in physiological science, are unnecessary to a clear presentation of the essential ideas for the general student of medicine. All phases of each vital process are stated in a concise and definite manner, and when one rises from a study of these various chapters it is with the conviction that physiology is a real, living science closely related to all problems of clinical medicine.

This fourth American edition contains, as did the previous editions, some gross anatomical facts which, as stated in the preface, are intended to adapt it to the needs of the American student. It is doubtful, however, if the student who is ignorant of these facts is in a proper mental condition to appreciate Professor Foster's expositions; to the advanced student and practitioner they are unnecessary. All the histological features required for an intellectual comprehension of any process were added by the author himself. The work is also profusely illustrated. The publishers deserve the thanks of the profession for a reprint of this valuable book.

FIFTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA. Transmitted to the Governor December 2, 1889. 8vo., pp. 734. Harrisburg: Edwin K. Myers, State Printer, 1891.

THE fifth annual report of the State Board of Health of Pennsylvania for the year 1889 is a volume of over 700 pages, well printed on good paper, and is altogether a creditable specimen of book-making. It contains a great deal of matter of special interest to the student of public health and hygiene, and at the same time much that has little value outside the official circle represented by the Board. But as it is a record of the transactions of the Board required to be made to the Governor of the Commonwealth, allowance may be made for a somewhat wearisome detail of its proceedings.

As might be expected, there is a very unequal value attaching to the various reports and papers. If possible to select such documents as have a special bearing upon important questions of public health—such, for example, as data relating to etiology of diseases of the infective class, the relation of the pollution of drinking-water to outbreaks of disease, the effects of good sanitary administration, or the reverse, upon the health of towns, etc.—to the exclusion of the description of nuisances of a minor character, it would improve the quality of the volume and enhance its value. This suggestion is not made in any spirit of fault-finding, but in the interest of the busy reader who is dismayed by the difficulties of even scanning the limitless and voluminous publications of the present day.

The scope of the work of the Board during the year may be learned by the perusal of Dr. Lee's admirable prefatory report. This, with the minutes, constitutes the first part. The second part is taken up with appendices embracing reports of committees and of inspection, annual reports of cities and towns, reports of conferences, of the flood at Johnstown and other districts, and quarantine, epidemics, and special sources of disease. The remaining appendices contain a report of the State Pharmaceutical Examining Board, meteorological observations, and other less important items.

Interest in the great catastrophe that befell Johnstown and other districts of the State is revived by the graphic description of the results of that unprecedented visitation of flood. Among the many lessons taught by that experience is the value of an organization like the State Board of Health, which by energy, promptness, and administrative ability, distinguished itself in a marked degree.

It is impossible to attempt more than the briefest reference to this report in the limited space allotted. It is sufficient to say that it contains valuable matter, carefully compiled and systematically arranged, which classes it as a volume that will compare favorably with the best of our State Board of Health reports.

SCIENTIFIC MEDICINE IN ITS RELATION TO HOMEOPATHY. By PROFESSOR THEODOR BAKODY, M.D., of the Buda-Pesth University. Translated from the German by RUDOLPH F. BAUER, M.D. Philadelphia: Boericke & Tafel, 1891.

THIS essay, it is stated, was written in response to an invitation from the *Pester Lloyd*, asking for an expression of opinion from the standpoint of the author, concerning the value of the Koch method of treatment, and the similarity of the same to the Hahnemannian methods. With the blind devotion of an idolater, Dr. Bakody acknowledges that "as a scientific follower of the doctrines of Hahnemann," he has "always endeavored . . . . to give the same a suitable, substantial basis, ... in accordance with the scientific knowledge of the day." He builds his superstructure first, and then endeavors to mount it

on a shifting foundation. That he is not an ordinary homeopath, however, is indicated by the fact that he admits of various methods for the treatment of disease, with which, he states, the scientific, educated physician must be familiar. Contrasting what of Hahnemannism he accepts with what he rejects, absolutely or by modification together with what he adds, there is little left on which to base a distinctive dactrine.

Koch's method of treatment is considered "an exact scientific confirmation in vindication of isopathy. The latter . . . . . is a branch deviating from the more advanced Hahnemannian principles, and extends far beyond the limits of the law of similarity. . . . . Koch is to be regarded as the scientific founder of the isopathic doctrine." As a result we have homeo-therapeutics and iso-therapeutics. The presumption of the writer of the essay reaches a climax when he says that "Koch's method . . . . . is rooted in homeopathic soil; his effort is essentially one in accordance with the Hahnemannian principle."

The aim of the true physician is to save life. It matters not to him whether the remedies he employs are designated symptomatic, specific, homeo-therapeutic, iso-therapeutic, antidotal, or what not. He must only not be restrained in their employment by considerations of theory or dogma.

The moral of all the agitation on the subject of homeopathy is that either there is a good deal of deception being practised upon a credulous public, or that the clouds of superstition have not yet been raised.

PRACTICAL INTESTINAL SURGERY. By FRED. B. ROBINSON, B.S., M.D., Professor of Anatomy and Clinical Surgery, Toledo Medical College, Toledo, Ohio. Vol. I, 1891. (The Physician's Leisure Library.) 12mo., pp. 167. Geo. S. Davis, Detroit, Mich.

To those who have followed closely in the wake of the later developments of the great movement in intestinal surgery that was initiated by Senn, at the Ninth International Medical Congress at Washington, in 1887, the name of Dr. Robinson must be familiar. While the author has not entered the literary arena until quite recently, the rapidity with which his communications have followed one another and the energy he has displayed in his experimental work—now represented by over 175 experiments on animals—as well as by his useful additions to the technique of intestinal operations, entitle him to a prominent seat in the bench occupied by the leading followers of the distinguished Western master, to whom this little treatise has been gracefully dedicated.

Outside of the preliminary anatomical sketches of the intestines and peritoneum, which are delineated in an unusually graphic and even picturesque and interesting style, the remainder of the 167 pages that make up the text are devoted to bowel-obstruction in its various phases and to the general and special operative measures that the most advanced surgery has suggested for its relief. Notwithstanding the limitation of his very narrow space, it is remarkable how well the author has succeeded in elucidating the most important technical problems that are involved in the subject. As an ardent partisan of anastomosis and as the parent of the "rawhide" and "segmented rubber plates," it is natural that he should exhibit special solicitude for his offspring in the numerous applications that can be made of these "aids" in anastomosis. To his credit be it said, that in the opinion of one who has carefully tried and compared almost all the numerous "aids" that have been suggested in the last two years as substitutes for the decalcified bone plate of Senn—from Abbe's catgut ring to the latest, Dawbarn's potato plate—none has been found superior to Robinson's segmented rubber plate; none, except the elegant decalcified bone plate at present manufactured under Senn's directions, by Shorse, of Milwaukee.

In addition to the technical innovations described by the author, this booklet contains many facts of a statistical character which are highly creditable to the author's condensing powers; the practical analytical table in the chapter on diagnosis (p. 44) being alone worth five times the price of the volume.

We can only regret, however, that so meritorious a production should have been clad in so poor a raiment; that ideas of merit should have been disfigured by so many glaring solecisms, and particularly by the total disregard of the most ordinary typographical precautions.

A SHORT MANUAL OF ANALYTICAL CHEMISTRY; QUALITATIVE AND QUANTITATIVE; INORGANIC AND ORGANIC. By JOHN MUTER, M.A., Ph.D., F.R.S.E., etc. First American from the Fourth English edition. Edited by CLAUDE C. HAMILTON, M.D., Ph.G., etc. Philadelphia: P. Blakiston, Son & Co., 1891.

THE American edition of Muter's Analytical Chemistry comes to us adapted to the United States Pharmacopœia, with several additions by the American editor. These are made principally in the chapter on the analysis of urine, the tests for certain organic compounds not contained in the English edition, also to the analysis of water, of milk, etc. As a systematic and brief guide for general chemical analysis this work is certainly useful and reliable, one that is well known and adopted abroad. To make such a work, however, a guide for the study of chemistry and chemical analysis by medical students and physicians is a difficult task, notwithstanding Dr. Hamilton's endeavor in this direction. The food-analysis is insufficient, and the chapter on milk, while unnecessarily complicated, must yield results, especially so far as the fat is concerned, that are far from accurate. Under the head of "Wine, Beer, Tincture, or Colored or Sweetened Spirit," an estimation of alcohol contained in these appears to be all that is aimed at, while tests for fuchsin, amylic alcohol, lead, phosphates, sugar, tannin, etc., are not given in connection with them. The analysis of the urine as given here is probably the weakest part of the book. In stating that mucin is also precipitated by the boiling-test for albumin the author is at variance with observers generally. It is universally conceded that if urine is slightly acidulated with acetic acid, mucin, if present in solution, will be precipitated and should then be filtered off before boiling, while the latter process cannot then precipitate mucin. The plates of the microscopic appearance of urinary sediments are the old-time cuts reproduced in an inferior manner. The direct application of Pettenkofer's test, as quoted here, will hardly ever yield any results. The produc-

tion of Teichmann's crystals as a test for blood is not mentioned, nor are pus and acetone as pathological ingredients of urine considered, or tests for them given.

We only select the foregoing points to indicate in which direction the author might have improved his work, and while we do not wish to underrate the value of its strictly chemical part we cannot indorse this work as one of special merit or service as a guide for the medical student or the physician in his chemical work.

A TREATISE ON PRACTICAL ANATOMY FOR STUDENTS OF ANATOMY AND SURGERY. By HENRY C. BOENNING, M.D., Lecturer on Anatomy and Surgery in the Philadelphia School of Anatomy; Demonstrator of Anatomy in the Medico-Chirurgical College, etc. 12mo. pp. xvi, 481. Philadelphia: F. A. Davis, 1891.

IN this work the aim of the author has been to arrange the subject so as to make it equally serviceable as a text-book on anatomy and as a dissector.

The book, according to the author's statement in the preface, is not a compilation, but is the result of years of practical work and a large experience in teaching. The descriptions in the text have been taken from the bone itself and from the subject on the table, and are so treated as to be adapted to the needs of the student.

Some parts of the work are good, as the sections upon the nervous system and the teeth; but other parts are entirely too superficial, as the section upon the vascular system—a division of such great practical importance to the surgeon—in which the relations of the larger blood-vessels are entirely omitted. The text, for the most part, is clear and forcible, but the matter is less extensive and less complete than any one of the well-known and much-employed compends of Potter, Nancrede, or Young. Its position as a literary effort is between such condensed and complete works as those mentioned, and such practical treatises as those of Heath, Holden, and Weise; and considering the limited character of the work, it would better have been called a hand-book, since it is neither a compend nor a treatise. The print is large, and the illustrations, especially the original cuts, are clear and good. The statement, however, is made in the preface that the illustrations have been carefully selected and their sources credited; on looking carefully through the work, except those few that are known to be original, many of the cuts are recognized as old acquaintances in Wilson and Heath, while others of them are reduced from the first English edition of Gray's *Anatomy*, but in not a single instance is the source credited.

The great fault with the work is its incompleteness—an error of omission rather than of commission—necessitating reference to standard treatises or recognized compends.

For example, the synovial membranes, other than those of the wrist and tarsal articulations, are not mentioned; "the great vessels and nerves, and some muscles," that pass through the superior opening of the thorax are not named. It is remarked that "the breasts are abundantly supplied with blood," and the blood-supply of the organs of special sense, of stomach, intestines, and ovaries, are passed in silence under the description of these viscera.

Less than four lines are devoted to the mediastinum. The orthography is correct, except the confusing description of the corpuscles of *Pacini* as the *Pacchionian* corpuscles (p. 438).

In a word, the incompleteness of the work must necessarily limit its field of usefulness.

SYLLABUS OF THE OBSTETRIC LECTURES IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA. By RICHARD C. NORRIS, A.M., M.D., Demonstrator of Obstetrics, University of Pennsylvania, etc. Second edition. Philadelphia: W. B. Saunders, 1891.

BOOKS of the class to which this one belongs would do little harm if their employment were restricted to the legitimate objects to which such publications are devoted—that is, as a guide or index to higher study. Too often, we fear, however, they are utilized as text-books, with the contents of which the student can become sufficiently familiar to make a good showing at a quiz-demonstration, or to pass a formal examination. By their use the stimulus to intellection is removed, and study becomes perfunctory, the processes by which knowledge is rendered permanent and valuable and fruitful are permitted by inactivity to become degenerate. The student could better afford to cover less ground thoroughly, so as to be familiar with every step of his way, and not be lost in a wilderness of meaningless language. The mind that is led along low levels cannot be expected to rise to great heights.

Such books are necessarily inadequate to the wants of the student. In the hundred or two hundred pages allotted them they can only deal superficially and incompletely with the vast number of subjects that come within their scope. That defects and imperfections of statement should occur will occasion no surprise.

This syllabus—the first edition of which was exhausted in eighteen months, and which is conveniently interleaved for the addition of notes—is not worse than many of its congeners, and is better than some. It is only to be regretted that a demand has been created for books of its class.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK. Eighty-fifth Annual Session, held at Albany, February, 1891. Philadelphia: Wm. J. Dornan.

THE association the volume of Transactions of which is under review comprises some of the foremost physicians of this country; consequently, the contributions contained in the work are, in greater part, of more than ordinary value—representing, as they do, the views of men thoroughly competent to speak authoritatively on the subjects treated. Unfortunately, the space at our command does not admit of a detailed account of all of the articles, or even of many of them that are deserving of an extended notice; therefore we shall be obliged to content ourselves with a brief mention of those papers which, in our opinion, are especially valuable to the general practitioner:

The discussion on "Tuberculosis" includes a paper on "Its History," by Dr. H. R. Hopkins; "Its Pathology and Etiology," by Dr. Heneage Gibbes; "Tuberculous Manifestations in the Upper Air-tract, and Special Treatment Thereof," by Dr. John O. Roe; "The Treatment of Tuberculosis, including Prophylaxis as Related

to Climate," by Dr. Samuel R. Ward; "Its Treatment as Related to Therapeutics," by Dr. E. L. Shurly; "Inoculations with Professor Koch's Tuberculin," by Dr. A. Jacobi; and a paper on "Koch's Treatment in the Mount Sinai and the New York Polyclinic Hospitals, February, 1891," by Dr. Henry Newton Heineman. These papers occupy nearly sixty pages, and taken *en masse* may well be considered to represent the present status of the disease under consideration.

Dr. William Wotkyns Seymour next considers "The Treatment of Gall-stones." This writer is opposed to protracted medical treatment, and advises operative measures when the attacks are of increasing frequency and severity. The operation he recommends is cholecystotomy, the mortality of which procedure, he asserts, is probably less than 5 per cent.

The discussion on "Appendicitis" includes papers by Drs. Charles McBurney, William W. Keen, Lewis A. Stimson, George R. Fowler, Robert F. Weir and A. Vander Veer. Taken collectively, they leave but little to be said on the subject.

The paper on "The Pathology of the Caisson Disease," by Dr. Howard Van Rensselaer, is of exceedingly practical importance, and the author is to be congratulated upon the interesting and scientific manner in which he has presented the results of his investigations. This article was the Merritt H. Cash prize essay of the New York State Medical Society, 1891.

Taken in its entirety, this volume of the Transactions of the Medical Society of the State of New York maintains the high character of the former issues for useful, scientific work.

THE URINE, THE COMMON POISONS, AND THE MILK. MEMORANDA, CHEMICAL AND MICROSCOPICAL, FOR LABORATORY USE. By J. W. HOLLAND, M.D., Professor of Medical Chemistry and Toxicology, Jefferson Medical College of Philadelphia. Illustrated. Fourth edition, revised and enlarged. Philadelphia: P. Blakiston, Son & Co., 1891.

THIS little work ought to be so thoroughly well known as to require no introduction. It contains, conveniently arranged and easy of access, a good deal of information especially adapted to the wants of the student in the pursuit of a practical knowledge of the methods of making clinical examinations of the urine and of the milk and the tests for the more common poisons. The book can conveniently be carried in the pocket, and is peculiarly suited for use in the laboratory. It can confidently be recommended to students and practitioners.

MINISTERING WOMEN: THE STORY OF THE ROYAL NATIONAL PENSION FUND FOR NURSES. By GEORGE W. POTTER, M.D. London: "The Hospital," 1891.

THIS interesting account of the founding and growth of the Royal National Pension Fund for Nurses will find, no doubt, in England a large number of readers. The object for which the author and his friends are working will naturally appeal most warmly to the community in which this work has been carried on. The name of Junius S. Morgan, however, so closely identified with the success of the undertaking, will cause the book to be received with interest in this country.

The writer has endeavored to state the history of the Pension Fund in clear terms, so that the account will appeal, first, to the body of trained nurses, and in the most common-sense way; and, secondly, to the charitable public. It is to be hoped that this book will attract the attention of the nurse-schools in this country, to the end of awakening a general interest in a similar undertaking, and of arousing nurses as a class to the importance of provision for their future condition.

CHILDBED NURSING. By CHARLES JEWETT, A.M., M.D. New York: E. R. Felton, 1891.

THIS manual contains in forty pages all that is of practical value to nurses and graduates upon the subject of obstetrical nursing. The author has adopted an arrangement in which the essential points are included in condensed paragraphs under general headings. The reader is thus enabled to take in at a glance the teachings of the lecture-course and ward-training, arranged in a classified form.

Some of the directions are somewhat absolute, and the writer asserts himself with unusual positiveness in regard to certain points that admit of difference of opinion. This, however, is a consequence of the manner in which the book is compiled, and detracts in no respect from its usefulness as a manual of exact teaching.

THAT UNCOMFORTABLE SHOE. A Treatise written in Clear and Plain Language on the Foot and its Uses in Walking, the Ill-fitting and the Comfortable Shoe, the Causes of and Remedies for Cobblers' Cripples, Corns, Bunions, etc., Containing also a Chapter on the Care of the Feet, and Describing the Taking of a Cast of the Foot. By AVARD J. MOORE. Profusely illustrated. New York: M. T. Richardson, 1891.

THE foregoing is sufficiently descriptive of the scope of the booklet that bears its title. The author, "a practical shoemaker," has admirably succeeded in presenting in a clear and comprehensive manner all that is worth knowing of the foot as an agent in progression, and of the means of providing it with a suitable and properly adapted covering. The book can be read with profit and advantage by both those who make and those who wear shoes.

3000 QUESTIONS ON MEDICAL SUBJECTS, ARRANGED FOR SELF-EXAMINATION, ETC. Philadelphia: P. Blakiston, Son & Co., 1891.

A little vest-pocket booklet, of 144 pages (a blank-leaf alternating with the printed ones), containing test-examination questions upon the different subjects of the medical student's studies, and with numbers following each question that refer to books and pages wherein the answers may be found. The books referred to are for the most part the Blakiston "Quiz Compends."

THE PHYSICIAN'S VISITING LIST FOR 1892. Philadelphia: P. Blakiston, Son & Co.

A PUBLICATION so well known that special commendation is superfluous. The dose-table contains a parallel

column giving the metric equivalent of the apothecaries' weight.

RECORDS OF THE ASSOCIATION OF ACTING ASSISTANT SURGEONS OF THE UNITED STATES ARMY, A.D. 1891. Edited by W. THORNTON PARKER, M.D., Recorder A. A. A. S., Salem, Mass. Salem Press Publishing & Printing Co., 1891.

THIS volume, excellently printed and bound, will be prized by army surgeons for its biographical information. It contains a transcript of United States Army regulations concerning acting assistant surgeons and other pertinent information.

THE MEDICAL NEWS VISITING LIST FOR 1892. Philadelphia: Lea Bros. & Co.

A MOST serviceable helper for the general practitioner, and one of which by experience he has learned the usefulness. The present edition has in many ways been revised and improved.

BURDETT'S (ENGLISH) HOSPITAL ANNUAL AND YEAR-BOOK OF PHILANTHROPY, 1891–1892: Containing a review of the position and requirements of the Voluntary Charities, and an exhaustive record of Hospital Work for the Year. It will also be found to be the most useful and reliable guide to the British and Colonial hospitals, dispensaries, nursing and convalescent institutions and asylums. London: "The Hospital," 1891.

A VALUABLE and trustworthy reference-book, the purpose and scope of which are expressed in the title-page quoted.

NEWS ITEMS.

Muscular Development Late in Life.—The *Lancet* describes a military bicycling trip in which one hundred miles were made in about ten hours. The veteran cyclist, Major Knox Holmes, almost at the close of his eighty-third year, mounted on a tandem, accompanied the corps, and arrived at the termination of the expedition five minutes in advance of the rest. He was a little distressed on dismounting, from too hard riding the last few miles, but he soon threw off his fatigue and joined his companions at dinner with thorough zest. His condition is physiologically peculiar. In twelve weeks' new training he has, in the most striking manner, "developed muscle" in the external and internal vasti, the rectus, and the muscles that form the calf of the leg—in refutation of the physiological doctrine that after threescore years and ten there is no new development of muscle.

The Late Dr. S. R. Knight.—At a recent meeting of present and former members of the medical staff and ex-residents of the Episcopal Hospital the following minute was adopted:

The present and past members of the medical staff of the Episcopal Hospital and its former resident-physicians desire to express the deep regret which the death of Dr. S. R. Knight has caused them. All of the many who have been associated with him in his long service as Superintendent of the Hospital feel that they have lost a sincere and honest friend. They remember the kindly advice, the shrewd help and counsel that he had always ready for their difficulties, professional and personal, his constant interest in all the varied work of the institution, and the wisdom with which he made his own duties at once an example and an opportunity to the younger men in the sphere of their labors.

Eleventh International Medical Congress.—At the recent Italian Congress of Internal Medicine arrangements were inaugurated for the next International Medical Congress, which is to meet in Rome in 1893. The last two weeks in September would be the best time for the meeting. Baccelli has been made chairman of the organizing committee; Maragliano, general secretary. There will be twelve sections represented respectively as follows: Anatomy, Antonelli; physiology, Albini and Albertoni; pathology, Bizzozero and Foà; pharmacology, Cervello; clinical medicine, Baccelli, Maragliano, Murri, and Bozzolo; surgery, Bottini; obstetrics, Morisani; psychiatry, Morselli and Tamborini; ophthalmology, Devincenzi and Secondi; dermo-syphilopathy, Campana and Barduzzi; forensic medicine, Tamapia; hygiene, Pagliani, Celli, and Canalis.

The Association of Military Surgeons of the National Guard of the United States will hold its second annual session at St. Louis, April 19, 20, and 21, 1892. An interesting program of addresses by prominent surgeons of the National Guard and of the United States Army has been arranged, and scientific papers on military and accidental surgery will be discussed. Dr. Eustathius Chancellor is chairman of the Committee of Arrangements.

The Southern California Medical Society held its eighth annual meeting at Riverside, on December 2 and 3, 1891. Norman Bridge, M.D., of Chicago, read a paper "On the Later Methods of Treating Tuberculosis," and William A. Edwards, M.D., late of Philadelphia, in conjunction with James Sears Waterman, M.D., of New York, presented "A Study of Hepatic Abscess, with the Exhibition of Post-mortem Specimens."

The Late Dr. Lippert has bequeathed four thousand five hundred dollars (eighteen thousand marks) to the medical faculty of the University of Berlin for the endowment of a prize.

Fischer, formerly Professor of Psychiatry at Prague, died recently.

CORRECTION.

In the report of a case of amebic dysentery, on page 659 of THE MEDICAL NEWS of December 5, 1891, the figures "eight or ten millimeters" apply to the *circumference*, and not to the diameter, as stated.

BOOKS AND PAMPHLETS RECEIVED.

Epilepsia Procursiva. By John Ferguson, M.A., M.D., L.R.C.P. Reprint, 1891.

The Treatment of Uremic Coma and Convulsions. By John Ferguson, M.A., M.D. (Toronto), L.R.C.P. (Edinburgh). Reprint, 1891.

Infantile Spastic Paraplegia. By John Ferguson, M.A., M.D., L.R.C.P. Reprint, 1891.